The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

VOL. 24. NO. 17. TULSA, OKLAHOMA, SEPTEMBER 17, 1925

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Preparing for Increased Crude Stocks

Highest daily average estimated production this year, week ended May 30, 2,347,984 bbls. Lowest January 3, 1,911,730 bbls.

Action of Prairie Emphasizes Fact Production Will Not Show Any Immediate Material Decline

By Andrew M. Rowley

Highest daily average estimated light oil production this year, week ended January 17, 1,525,220 bbls. Lowest July 18, 1,374,173 bbls.

If the petroleum industry needed any further proof that crude oil production is expected to continue at a high level for quite some time yet with a resultant additional increase in the quantity of crude held in storage, the action of the Prairie Oil & Gas Company this week in passing its September dividend should provide that proof. This action on the part of the major crude oil purchaser in the Mid-Continent area is its first in many years and, considered in connection with the fact the earnings of that company during the first seven months of this year were greater than during the similar period of the two preceding years, it simply emphasizes the fact the Prairie at least expects to store considerable crude oil this fall and winter and must have cash available to pay for this oil.

While different branches of the industry are talking curtailment of production and refining operations, experience of the past has shown it is a most difficult matter to get everyone to agree to curtailment and unless all in each area will agree to a shut down of unnecessary operations, none is willing to do so. The Prairie evidently realizes this fact and wants to assure itself of its ability to care for the thousands of small producers whom it serves.

While there was a decline in total crude oil production last week, the output of light gravity oil showed another increase, due mainly to gains registered in Oklahoma and the Salt Creek Field in Wyoming. However, an increase or a decrease of 5,000 or 10,000 barrels a day in production at this time means little or nothing, except as to show trend of production. The industry could very well get along with at least 200,000 barrels a day less crude oil production than is being brought to the surface now.

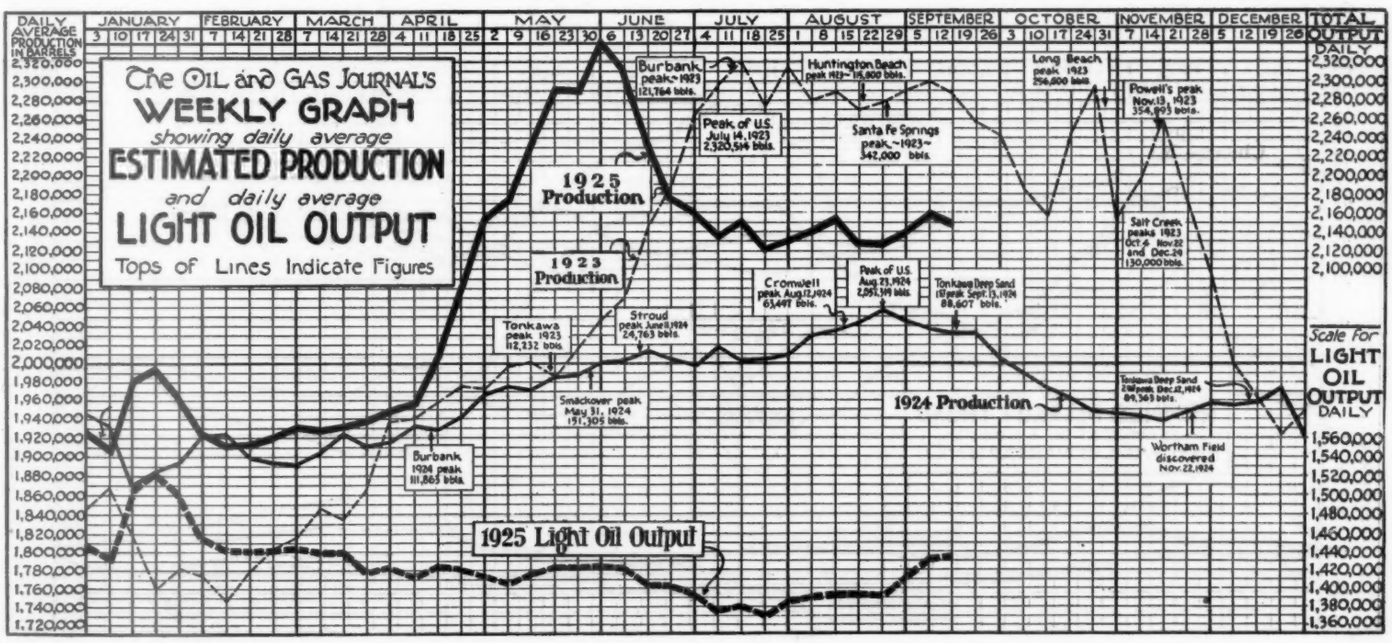
The Inglewood Field in California has started downward and operations in that field are slowing up perceptibly owing to the fact most of the productive area has been drilled and the initial output of completions is much less. Announcement has been made drilling will be curtailed in the Reagan County Field in Texas where substantial increases in production have been registered recently. Oklahoma, however, continues to develop new producing horizons and no material decrease in production should be expected for some time. With the season of maximum gasoline demand about over, stocks of crude are bound to increase with present production. Crude oil prices usually are reduced when crude is being placed in storage in large quantities.

PRODUCTION IN THE UNITED STATES

Estimated daily average production of light and heavy gravity crude oil in the United States for the week ended September 12, and a comparison with the previous week follows:

	Sept. 12		Sept. 5	
Oklahoma—	**Light**	**Heavy**	**Light**	**Heavy**
Tonkawa	55,335		53,230	
Burbank	53,865		53,680	
Other Osage Fields	33,510		32,670	
Cushing and Shamrock	22,635		22,565	
Bristow and Eastern Bristow	31,065		31,355	
Cromwell	28,670		28,945	
Papoose	14,705		15,145	
Garber	36,245		34,560	
Braman-Blackwell	22,495		24,145	
Davenport	13,440		13,170	
Northern Miscellaneous	106,465		105,505	
Southern Fields	61,050		61,240	
Total Oklahoma	479,480		476,210	
North Louisiana	48,632		48,190	
Arkansas				
El Dorado and Calion	8,800		8,805	
Smackover Light	25,475		25,810	
Smackover Heavy		180,705		186,085
Stephens and Nevada	3,145		3,255	
Total Arkansas	37,420	180,705	37,870	186,085
North Central Texas	169,145		174,693	
Powell	43,000		42,500	
Mexia, Currie, Richland, etc.	23,060		22,440	
Wortham	23,500		23,900	
Kansas	111,765		111,860	
Total Mid-Continent Area	936,002	180,705	937,663	186,085
Gulf Coast		102,145		103,635
Southwest Texas		45,440		45,310
Eastern	108,050		108,200	
Rocky Mountain Area	113,975		109,150	
California—				
Santa Fe Springs	53,500		53,000	
Long Beach	103,000		100,000	
Huntington Beach	44,000		43,500	
Torrance		34,500		35,000
Dominguez	29,560		29,000	
Rosecrans	25,500		26,000	
Inglewood	9,000	91,000	10,000	97,500
Remainder of State	16,000	260,000	17,000	261,000
Total California	280,500	385,500	278,500	393,500
Total United States	1,438,527	713,790	1,433,513	728,530
Grand Total		2,152,317		2,162,043

Total Decrease, 9,726 Bbls.; Light Oil Increase, 5,014 Bbls.


The OIL and GAS JOURNAL'S
WEEKLY GRAPH
showing daily average
ESTIMATED PRODUCTION
and daily average
LIGHT OIL OUTPUT
Tops of Lines Indicate Figures
1925 Production
1923 Production
1924 Production
1925 Light Oil Output
Burbank peak~1923 121,764 bbls.
Peak of U.S. July 14, 1923 2,320,514 bbls.
Huntington Beach peak 1923~ 115,800 bbls.
Santa Fe Springs peak,~1923~ 342,000 bbls.
Long Beach peak 1923 256,600 bbls.
Powell's peak Nov.13, 1923 354,895 bbls.
Salt Creek peaks 1923 Oct.6 Nov.20 and Dec.29 130,000 bbls.
Tonkawa peak 1923 112,232 bbls.
Stroud peak June 13,1924 24,763 bbls.
Smackover peak May 31, 1924 151,305 bbls.
Burbank 1926 peak 111,865 bbls.
Cromwell peak Aug.12,1924 63,497 bbls.
Peak of U.S. Aug.23,1924 2,351,349 bbls.
Tonkawa Deep Sand 1st peak Sept.13,1924 88,607 bbls.
Tonkawa Deep Sand 2nd peak Dec.12,1924 89,369 bbls.
Wortham Field discovered Nov.22,1924
Scale For LIGHT OIL OUTPUT DAILY
DAILY AVERAGE PRODUCTION IN BARRELS
TOTAL DAILY OUTPUT
JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER TOTAL

All Oklahoma Refined Products Strong

Heavy Buying During the Week Causes a Sharp Advance in Gasoline Prices. Kerosene Almost Unobtainable. Fuel Oil Firm. Naturals Higher

By Neil Williams

Sellers held the upper hand in the Oklahoma (Group 3) refined market the past week and for the first time in several months every product was strong with prices rising. At different times recently one or more has had a show of strength but the past week there did not seem to be a sign of weakness anywhere.

Fuel oil, distillates and kerosene have been firm with steadily gaining strength for several weeks but the almost sudden upward reaction in gasoline last week proved a surprise to nearly all, buyers and sellers alike. The check in the rapidly declining gasoline market about 10 days ago, at first thought only temporary, instilled confidence in the situation, and today (Tuesday), gasoline prices are one-quarter to three-quarters of a cent higher than they were a week ago.

The strong position of the Oklahoma refiners at this time can be attributed largely to the fact that the upward reaction was unexpected by the majority of buyers and sellers. Coming suddenly when buyers were expecting much lower prices, the turn caught most jobbers with entirely empty storage. As a result the rush to fill jobbers' tanks apparently has cleaned up all available surplus gasoline at Oklahoma refineries, placing the refiners in a strategic position.

On the other hand, if jobbers had not been caught napping and had figured prices at the lowest level they perhaps would have been gradually filling their tanks and would have had no particular occasion to buy heavily the past week.

Buying for Future

The past week was marked by an almost complete reversal of the buying policy of jobbers. The slow, careful purchasing on the part of jobbers throughout the summer to cover only their actual consumption demands suddenly was abandoned when nearly all attempted to buy long and in large quantities for future delivery.

Refiners, on the other hand, expecting considerably higher prices, were hesitant on selling for future delivery. However, buying was so heavy and active the past week that many refiners reported they already had more than sufficient orders on their books to keep their plants busy at least another month and would be forced to delay shipments, and in some cases to withdraw quotations.

In fact, several refiners actually have oversold their plants' capacity for the month and will be forced to buy on the spot market later. This situation is expected to prove an additional strengthening factor by taking up whatever surplus gasoline any other refiners not so well situated may have. However, if these oversold refiners are unable to buy on the spot market they might be forced to increase their crude runs which, market observers maintain, would be a death blow to the strong position now held.

With gasoline demands uncertain for the remainder of the fall, coupled with the fact that unfavorable motoring weather the past week or 10 days in nearly all parts of the country is causing a considerable lessening in consumption, the increase in production at this time would be doubly disastrous, the market critics explain.

Although the upward reaction in gasoline was somewhat unexpected at this time, refiners for several months have gradually been strengthening their position. Although not generally known, a number of plants have had no surplus gasoline for some time and were far behind with orders.

Such a situation in existence at a time when buying was comparatively light, together with the vast amount of orders placed the past week, may be sufficient to hold the market for some time despite a possible increase in runs or a falling off in orders.

Gasoline and Naphtha

The present market strength was felt in higher prices for all grades of gasoline and naphtha but most of the activity in buying was in the U. S. Motor (58-60, 437) product. This product, which a week ago was moving for 8¼ to 8½ cents, was in great demand at 9 to 9½ cents Tuesday with the bulk of sales trending toward the higher figure.

While U. S. Motor gasoline was the feature of the market, buying of export grades was not dull. Several exporters were in the market for 64-66, 375 gasoline. Most of the export purchasing was from North Texas but this served to strengthen the Oklahoma market. Sinclair Refining Co. is reported to have purchased between 2,500,000 and 3,000,000 gallons from North Texas but market observers believe this a high amount as they did not believe that much of the product was available. Carson Petroleum Co. purchased approximately 500,000 gallons in North Texas in the last 10 days and something more than a quarter million from Oklahoma the past week. These purchases have placed 64 gasoline at a premium in both States with the market Tuesday ranging from 11½ to 12 cents.

Although very little 60-62, 400 or 68-70, 350 gasolines was available during the week, what few sales were made Tuesday placed the market of the former at 10½ to 10¾ cents and the latter at 12½ to 13 cents. Demand for 56-58, 450 gasoline also was heavy during the week and refiners were forced to advance quotations. The prevailing prices Tuesday were 8¾ to 9 cents. The 50-52, 450 naphtha was moving at 8¼ to 8½ cents.

Natural Gasolines and Blends

In line with demand for straight run gasoline all grades of naturals have increased in activity and strength the past week with the sales below 12 cents on Tuesday very scarce. Natural gasolines never have fallen off to the extent straight run products have, so now with rising prices the interest of market observers is turned on naturals to see what possible new high prices they may reach. In connection with the high spot prices of natural gasolines it is interesting to note that many contract prices are yielding the manufacturers as low as 6½ to 8 cents a gallon. Blends still are comparatively inactive but prices on the lower gravities are stronger in line with U. S. Motor market.

Kerosene and Distillates

All grades of kerosene continued at a premium the past week. What little kerosene was obtained was moved at higher prices with buyers apparently willing to pay almost anything to find the product. The 41-43 water white was bought Tuesday at 4⅞ to 5 cents and a

(Continued on Page 124)

REFINED MARKET BAROMETER

The downward trend of refined markets of the country was checked generally the past week, largely the result of an upward reaction and show of strength in Mid-Continent and Chicago areas. Demand for all refined products was excellent. Gasoline prices in the Mid-Continent and Chicago districts were advanced although in other sections they only remained fairly steady. Kerosene was generally firm with continued strength in some areas. Fuel oil and gas oil generally firm with rising prices. Distillates quiet but steady. Lubricants were unchanged except in some Mid-Continent areas where a falling off in demand resulted in slightly lower cylinder stock prices. Wax unchanged. Natural gasolines steady to strong.

Mid-Continent—Strong prices featured nearly all Mid-Continent refined markets the past week. Active demand and buying causes rising gasoline prices. Kerosene gained strength, particularly in Oklahoma and Texas. Natural gasolines scarce. Fuel oil and gas oil generally steady with higher prices in some parts. Lubricants generally firm although cylinder stocks off 1 cent in Oklahoma. Wax steady. Distillates quiet but firm.

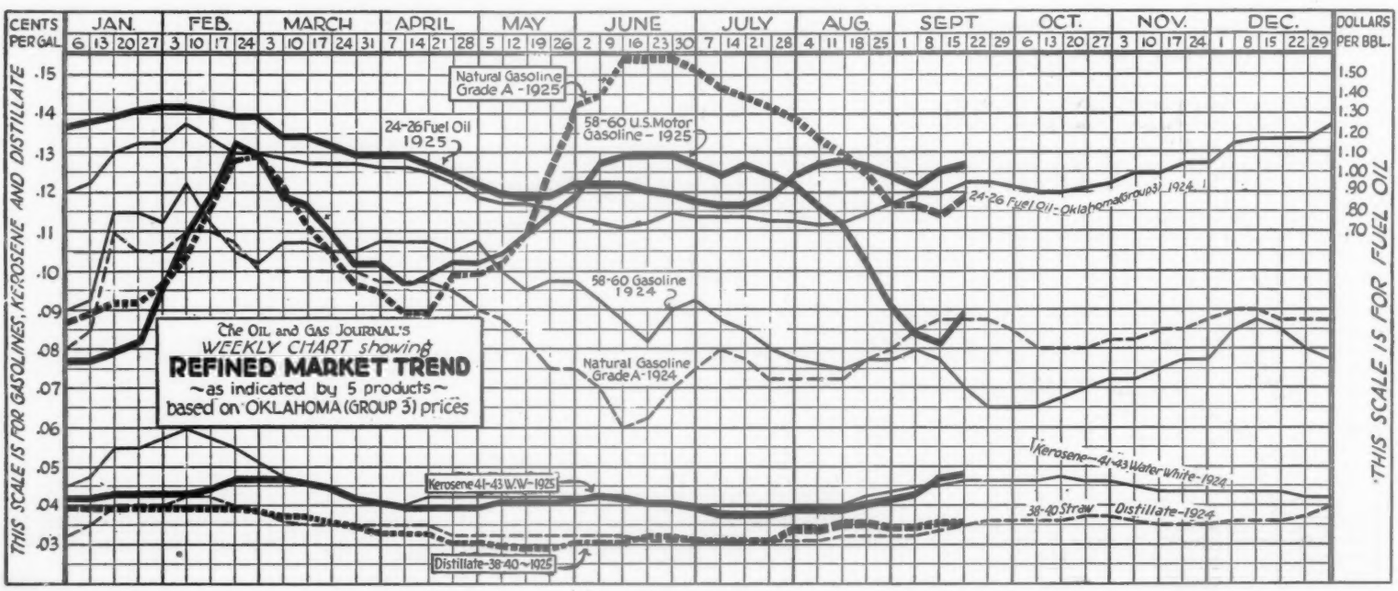
Atlantic Seaboard—Decline of gasoline prices stemmed as result of Mid-Continent market strength. Kerosene firm with good domestic and export demand. Gas oil and fuel oil quiet but steady. Lubricants firm. Wax demand gains.

Pennsylvania—Pennsylvania refined markets quiet and little changed. Kerosene and fuel oil demand good. Cylinder stocks slightly off.

Chicago—Refined markets strong with buying active. Gasoline price trend upward. Kerosene scarce. Distillates firm but spot activity not great. Lubricants unchanged.

Gulf Coast—Lubricants softer with prices generally lower. Gas oil weaker but fuel oil unchanged.

California—California refined markets unsettled with gasoline price cuts possible. Demand good.


CENTS PER GAL
DOLLARS PER BBL.
JAN. FEB. MARCH APRIL MAY JUNE JULY AUG SEPT OCT. NOV. DEC.
THIS SCALE IS FOR GASOLINES, KEROSENE AND DISTILLATE
THIS SCALE IS FOR FUEL OIL
Natural Gasoline Grade A - 1925
24-26 Fuel Oil 1925
58-60 U.S. Motor Gasoline - 1925
24-26 Fuel Oil - Oklahoma Group 3 - 1924
58-60 Gasoline 1924
Natural Gasoline Grade A - 1924
Kerosene 41-43 W.W. - 1925
Distillate 38-40 - 1925
Kerosene - 41-43 Water White - 1924
38-40 Straw Distillate - 1924
The Oil and Gas Journal's WEEKLY CHART showing REFINED MARKET TREND ~as indicated by 5 products~ based on OKLAHOMA (GROUP 3) prices

Thomas Pool Now Center of Interest

Expected to Be Most Steeply Folded of All Wilcox Sand Structures. Difference in Depths a Puzzle

By C. D. Lockwood

Since the encroachment of water in the Garber Field materially reduced the predictions of that great field's probable peak output from the lower sands, and the failure of wells on the townsite of Braman practically limited the potential productive area of that promising pool to the acreage of one major concern which will develop it conservatively, the eyes of the industry have been focused upon the third member of northwestern Oklahoma's "Four Horsemen of the Oil Business," the Thomas Pool, which is located about 6 miles northwest of the Tonkawa Field, the greatest of all Wilcox sand pools.

The Wilcox sand has generally been supposed to festoon the rugged peaks of buried mountain ranges in northwestern Oklahoma, a fact which is strikingly evidenced by the depths at which the Wilcox horizon is penetrated in wells located only a few miles apart. In the Hubbard Pool, for instance, in Section 12-26-2w, the Siliceous lime, lowest member of the Wilcox sand series, is found at approximately 3,550 feet, and the top of the Wilcox series is reached at about 3,500 feet, while in the old Laurel Oil Co. duster in Section 8-26-2w, just about 4 miles west of the Hubbard Pool, the Wilcox horizon was not encountered until 5,017 feet. Continuing in a northwesterly direction, toward the Deer Creek Field, the Mississipian and lower formations start rising again until they are high enough to be reached by the drill at 4,057 feet in a Deer Creek well, less than 6 miles from the Laurel failure.

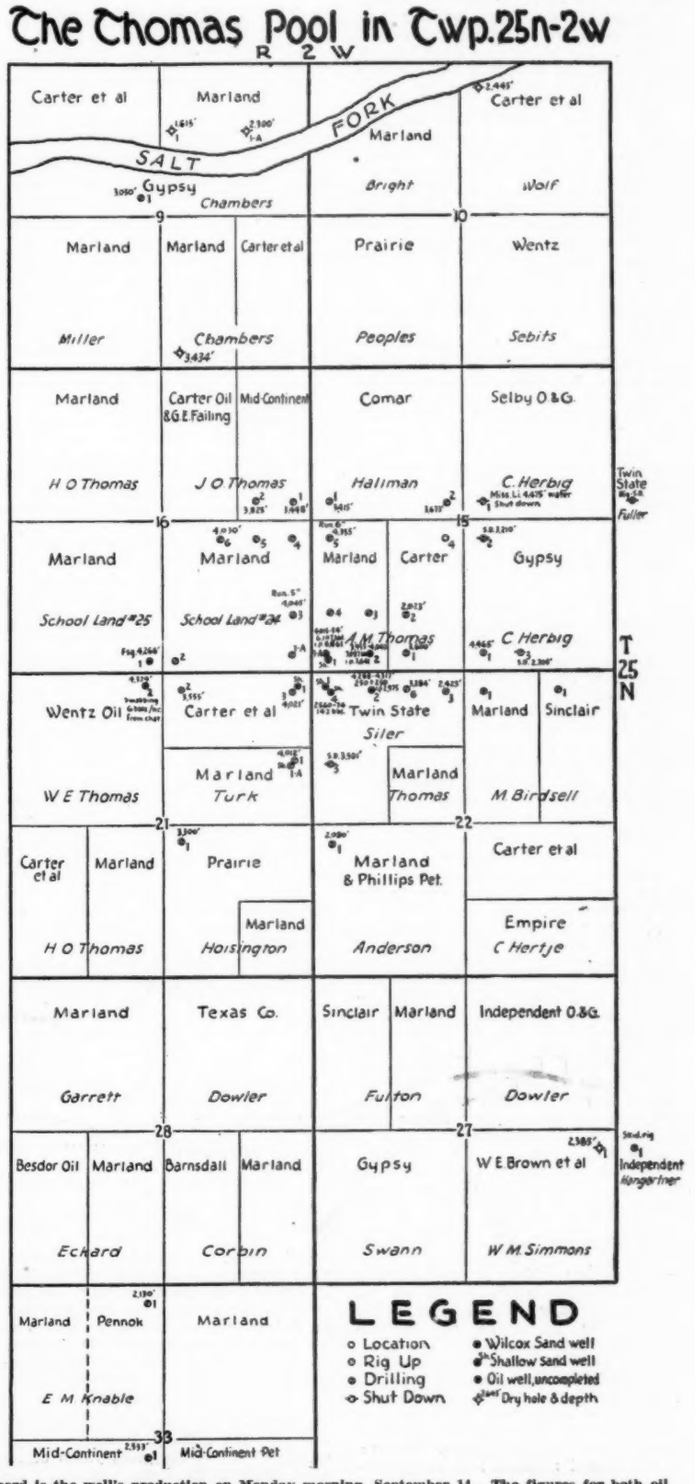
Difference in Depths

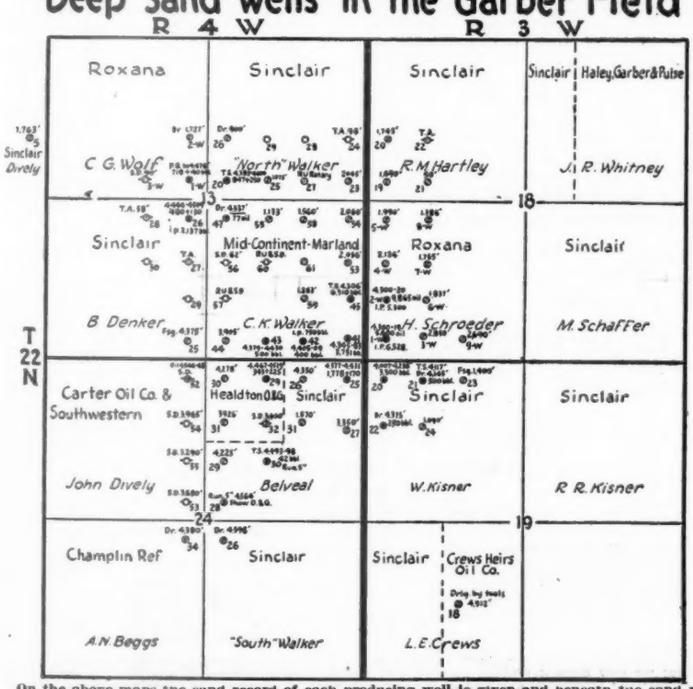
The difference in the depths at which the Wilcox is found in the K-D Oil Co.'s record-breaking hole, compared with depths in the Billings and Garber Pools, is another example of the mountainous character of the lower strata in that country. In the deepest producing well in the State, the Wilcox was penetrated at about 5,070 feet, while a deep hole in the Billings Field reached the Wilcox at approximately 4,360 feet, according to the interpretations of the best geologists, and the same horizon in the Garber Field is found at approximately 4,310 feet. The K-D well is less than 4 miles from the deep Billings Pool test, although the dip in that short distance is more than 700 feet. From the K-D well to Garber is about 12 miles, which still makes an abnormally short distance for so great a structural dip.

The Thomas Pool, however, is expected by geologists who are studying the field closely to prove to be the most steeply folded of all known Wilcox sand structures. Either that or it will be found to contain a fault similar to the fracture which traverses the Hubbard Pool in the next township to the north. The difference in sand elevation of 288 feet between the Marland Oil Co.'s discovery well and the Twin State Oil Co.'s offset to the south, No. 2 Siler, only 660 feet distant, is difficult to explain in the opinion of some geologists, except by the presence of a fault. This theory is strengthened by the logs of two wells in the north end of the field, the Selby Oil & Gas Co.'s No. 1 Herbig, in the SW NE of Section 15, appearing to be on the upthrow or west side of the supposed fault, having had the red rock at 4,255-65 feet which was obtained in the Twin State's No. 2 Siler at 4,145-55 feet. The Gypsy Oil Co.'s No. 1 Herbig, half a mile due south of the Selby test, was drilling at 4,465 feet Monday and is apparently on the downthrow side if there is any fault in the field. According to some rock hounds, the principal "fault" to be found with the field is the lack of conformity between the upper and lower horizons, and the steepness of the structural dip. The principal hope of the concerns owning acreage in the field now is that good production will be obtained far down the flanks of the fold, as in the Tonkawa Field.

Pending the solution of some of the questions concerning the Wilcox horizon, the Gypsy Oil Co. has shut down its

(Contiued on Page 121)





On the above maps the sand record of each producing well is given and beneath the sand record is the well's production on Monday morning, September 14. The figures for both oil and water are given, as 780+250 means 780 bbls. of oil and 250 bbls. of water. In some cases the initial production (I.p.) is also given. The status of all uncompleted wells is given as of Monday. Abbreviations are used as follows: S.d. for shut down. Dr. for drilling, Fsg. for fishing; T.a. for temporarily abandoned. All wells not otherwise specified are actively drilling.

Approximating Refinery Production

Yield Factors Determined by Laboratory and Plant Tests of Special Value in Control Work and Increasing Efficiency

*By J. M. Evans
Chief Chemist, Associated Oil Co.

Several years ago two large companies in California entered into a profit-sharing contract. One of these companies was engaged solely in the business of producing crude oil, the other company was chiefly concerned in producing refined products. The refiner had large refining facilities on San Francisco bay, the producer had crude oil and pine line facilities from the oil fields to tidewater.

The contract provided that the producer would deliver monthly certain quantities of crude oil to the refinery. The refiner would convert this crude oil into refined products, such as best business judgment dictated, and after the sale of these refined products, the net proceeds would be calculated and a share of these proceeds returned to the producer. This amounted to the payment of a sliding scale bonus, dependent upon the quality of the oil and current market conditions.

When the time arrived to put this contract into effect, it was soon found that it was impossible to determine the actual exact yields of refined products from this particular crude. The crude which the producer was delivering was, of course, not the refiner's only source of supply and it would be difficult to segregate the producer's crude and would be impossible to keep separate the refined products and partially fractionated or so called "intermediate distillates" from this crude.

It was therefore necessary to devise a system of determining from laboratory tests a very close approximation of actual refinery yields. A working basis immediately suggested itself, that is, making laboratory analyses of all crude materials from which the month's yield of refined products is obtained. Then the ratios of refinery yields to laboratory yields for the various products can be applied to any individual laboratory determination or series of determinations and so convert them into approximate refinery yields. The working basis was simple enough—its actual application was found somewhat more difficult.

Survey of Situation

A survey of the situation showed that in no case was the crude run to the stills during the month carried directly through to refined products; certain intermediate distillates were stored or taken from storage, as market conditions dictated. The survey showed, however, that the chief supply of unrefined materials on hand at any time consisted of the original crudes and the crude naphtha or tops taken off in the first skimming operation. Receipts consisted also of shipments of crudes and tops from various sources. Certain minor receipts and transfers from external sources had to be taken into account.

It was apparent that if a laboratory distillation was made on all the crude on hand at the first of the month and all the tops on hand the first of the month, and to this was added the receipts during the month, then by the deduction of the following month's inventory, a result would be obtained showing the laboratory analysis results on the material actually refined during the month; the percentage of products shown by the laboratory distillation having been applied to actual gauged totals.

Stated in another manner: At the beginning of the month samples are taken of the total crude inventory; laboratory distillations are made determining gasoline, engine distillate, kerosene, light fuel and residuum; to this inventory is added the laboratory yield of refined products contained in the receipts. The total gives the laboratory potential yield of refined products available, and by deducting the analyzed inventory at the end of the month we obtain the actual material distilled in terms of laboratory refined products. (See Table I.)

Gross Yields

Passing to the actual refined oils produced in the refinery it was a simple matter to obtain the gross yields of refined products from the production accounting sheet, but certain corrections

(Continued on Page 80)

*Paper presented at Los Angeles meeting of Petroleum Division of American Chemical Society.

LABORATORY ESTIMATE OF PRODUCTION

Table No. 1

October 1 Inventory—	Gasoline	Engine Distillate	Kerosene	Bottoms	Residuum	Oil Total	Loss	Dry Total	Water	Gross Gauged Total
Refining crude	35,520	3,730	9,719	13,356	108,083	170,408	1,570	171,978	18,570	190,548
Crude naphtha	80,987	.....	12,907	37,246	.....	131,140	905	132,045	.....	132,045
Receipts—										
Producers' crude	36,194	4,902	14,449	15,545	93,888	164,978	417	165,395	2,355	167,750
Refiners' crude	65,597	2,218	4,564	12,928	152,119	237,426	1,484	238,910	13,892	252,802
Miscellaneous receipts	2,196	1,793	1,759	21,553	2,462	29,763	67	29,830	570	30,400
November 1 Inventory—										
Refining crude	48,375	.....	1,648	3,378	73,549	126,950	570	127,520	17,550	145,070
Crude naphtha	78,432	1,228	14,672	33,381	.....	127,713	949	128,662	.....	128,662
Laboratory estimate of production..	93,687	11,415	27,078	63,869	283,003	479,052	2,924	481,976	17,837	499,813

In Table No. 1 we determine an estimate of production by laboratory analysis. Each of the lines represents the summation of several receipts or tanks which are carefully gauged, sampled and analyzed. Then, by adding the inventory of October 1 to the receipts during October and deducting the inventory of November 1, we obtain a laboratory production. The figure 481,976 is the check or balance figure carried throughout the report.

DETERMINATION OF NET REFINERY PRODUCTION

Table No. 2

	Gasoline	Eng. Dist. Stock	Kerosene Stocks	Stove Oil	Gas Oil	Residuum	Oil Total	Loss	Dry Total	Water	Total
Refinery production gross gauged amounts	97,451	25,900	32,632	22,567	46,170	298,418	523,138	1,511	524,649	.....	.....
1 Overs and shorts	—3,066	—38	—135	—210	42	.....	—3,407	....	—3,407	.....	.....
2 Kero. stock redistilled	.....	.....	—5,014	.....	.....	.....	—5,014	....	—5,014	.....	.....
3 Gasoline to crude naphtha	—893	.....	.....	.....	.....	.....	—893	....	—893	.....	.....
4 Gasoline to stove oil	—39	.....	.....	39	.....	.....	.....	....	.....	.....	.....
5 Engine dist. stock to kerosene distillate	.....	—13,699	.....	.....	.....	.....	—13,699	....	—13,699	.....	.....
6 Engine dist. stock to kerosene stock	.....	—887	887	.....	.....	.....	.....	....	.....	.....	.....
7 Kerosene stock to kerosene distillate	.....	.....	—1,950	.....	.....	.....	—1,950	....	—1,950	.....	.....
8 Kero. stock to S. S. Bottoms	.....	.....	—69	.....	.....	.....	—69	....	—69	.....	.....
9 Eng. dist. to stove oil	.....	—9	.....	9	.....	.....	.....	....	.....	.....	.....
10 Transfers returned to slop oils	.....	.....	.....	—263	—77	—4,162	—4,502	....	—4,502	.....	.....
11 Stove oil to S. S. Bottoms	.....	.....	.....	—3,888	.....	.....	—3,888	....	—3,888	.....	.....
12 Lub. oil, gas oil to refining crude	.....	.....	.....	.....	—2,754	.....	—2,754	....	—2,754	.....	.....
13 Kero. dist. from storage	—330	—413	—1,198	.....	.....	.....	—1,941	—54	—1,995	.....	.....
14 S. S. Bottoms from storage	—620	—443	—1,033	—762	—1,558	.....	—4,416	—86	—4,502	.....	.....
Net refinery production	92,503	10,411	24,120	17,492	41,823	294,256	480,605	1,371	481,976	17,837	499,813

This tabulation shows the method of getting the net refinery production. Line No. 1 illustrates method of handling overs and shorts. Lines Nos. 3, 5, 7, 8 and 11 illustrate transfers of finished commodities back to intermediate distillates. Lines Nos. 4, 6 and 9 illustrate transfers of one finished product to another. Lines Nos. 13 and 14 illustrate the handling of intermediate distillates when used from storage. The redistillation of a finished product is illustrated in line No. 2. The transfer of materials from an external source or another division of the refinery into an unfinished product is illustrated in lines Nos. 10 and 12.

REFINERY FACTORS AND THEIR APPLICATION

Table No. 3

	Gasoline	Engine Distillate	Kerosene	Bottoms	Residuum	Oil Total	Loss	Dry Total	Water	Gauge Total
Laboratory est. of prod.	93,687	11,415	27,078	63,869	283,003	479,052	2,924	481,976	17,837	499,813
Net refinery production	92,503	10,411	24,120	59,315	294,256	480,605	1,371	481,976	17,837	499,813
Refinery factors	0.98736	0.91205	0.89076	0.92870	1.03976	.....	....	.....	.....	.....
							Correction necessary to bring factored totals to gauge totals:	Correct Oil Total	Loss	Dry Gauge Total
On hand October 1—										
Refining crude	35,071	3,402	8,657	12,404	112,381	171,915	—426	171,489	489	171,978
Crude naphtha	79,963	.....	11,497	34,590	.....	126,050	+5,619	131,669	376	132,045
Receipts during October—										
Producers' crude	35,737	4,471	12,871	14,437	97,621	165,137	—212	164,925	470	165,395
Refiners' crude	64,768	2,023	4,065	12,006	158,167	241,029	—2,799	238,230	680	238,910
Miscellaneous receipts	2,169	1,635	1,567	20,016	2,560	27,947	+1,798	29,745	85	29,830
On hand November 1—										
Refining crude	47,764	.....	1,468	3,137	76,473	128,842	—1,685	127,157	363	127,520
Crude naphtha	77,441	1,120	13,069	31,001	.....	122,631	+5,665	128,296	366	128,662
Net refinery production	92,503	10,411	24,120	59,315	294,256	480,605		480,605	1,371	481,976
Percentage production	19.24720	2.16623	5.01867	12.34174	61.22616	100.000		.....	....	.....

In this table the refinery factors are determined by finding the ratio between the laboratory production and the refinery production. The factors are then applied to the items in Table No. 1 giving the lower tabulation in which the columns add to refinery production. In cross adding along the lines certain corrections are necessary to bring the figures to the gauged totals. These corrections are prorated by the percentages given in the last line, giving us Table No. 4, which cross balances.

PRORATION OF CORRECTIONS NECESSARY TO REACH GAUGED TOTALS

Table No. 4

On hand October 1—	Gasoline	Engine Distillate	Kerosene	Bottoms	Residuum	Oil Total	Loss	Dry Total	Water	Total
Refining crude	34,989	3,393	8,636	12,351	112,120	171,489	489	171,978	18,570	190,548
Crude naphtha	81,045	122	11,779	35,283	3,440	131,669	376	132,045	.....	132,045
Receipts during month of October—										
Producers' crude	35,696	4,466	12,860	14,411	97,492	164,925	470	165,395	2,355	167,750
Refiners' crude	64,229	1,962	3,925	11,661	156,453	238,230	680	238,910	13,892	252,802
Miscellaneous receipts	2,515	1,674	1,657	20,238	3,661	29,745	85	29,830	570	30,400
On hand November 1—										
Refining crude	47,440	—37	1,384	2,929	75,441	127,157	363	127,520	17,550	145,070
Crude naphtha	78,531	1,243	13,353	31,700	3,469	128,296	366	128,662	.....	128,662
Net refinery production	92,503	10,411	24,120	59,315	294,256	480,605	1,371	481,976	17,837	499,813

In this table we have the completed approximation of refinery yields from all sources. These represent the amounts of stock commodities; if further treatments or filtrations are necessary the amounts used and the losses incurred are determined by direct percentages.

PRORATION OF REFINED OILS TO STILLS

Table No. 5

	Gasoline		
	Refinery	Ratio	From Producers' Crude
Crude stills from refining crude	29,680		10,872
Steam stills from crude naphtha	48,730		17,850
Crude stills from S. S. bottoms	9,539		3,494
Rerun stills from S. S. bottoms	1,892		693
Kerosene stills from kerosene distillate	3,418		1,252
Rerun stills from kerosene distillate	4,192		1,535
	97,451	.36620	35,696

Note that the total refinery gasoline is the same figure as the gross used in Table No. 2, but we now have it divided according to the sources at which distilled. By proration we divide the producers' gasoline in the same manner. Following the same procedure, we can divide up kerosene, bottoms, other commodities and loss and then, by selecting proper items, determine the amount of producers' material used in each distillation and assign the proper costs.

Keen Competition in New England

Company Filling Stations Forced to Compete Against Own Gasoline Sold by Other Dealers Under Service Station Prices

By L. M. Fanning

BOSTON, Mass., Sept. 12.—When late in the summer of last year the tank wagon market in the New York and New England territory went down to 14 cents, which proved to be the low price for the year, the action gave some faint indication of the acute competitive situation in this territory. This year the reductions have come along 2 cents a clip, and until the last cut by the Standard Oil Co. of New York on August 26, establishing a tank wagon price in Massachussetts, Rhode Island and Connecticut of 16 cents a gallon, in Maine, New Hampshire, Vermont and Upper New York State of 18 cents and in Greater New York of 17 cents, there was so great a spread between the tank wagon price and the price in carload lots delivered as well as in barge and tanker gasoline delivered from eastern refineries and even from California that the so-called tank wagon market, particularly in New England, again proved fallacious.

For the last month the tank wagon market has meant but little in New England, except something to shoot at and cut, and the alleged differential of 4 cents between the tank wagon and the service station price which some of the large companies have adhered to at their own stations has been pressed down by dealers according to local conditions.

In a sense what is going on in New England is not much different from what is occuring throughout the country in its general aspects. That is, there is an immediate oversupply of gasoline and a disposition to unload, but unusual interest attaches to the situation because of the drive that is going on in this territory as well as in the New York territory by practically all the major companies to get an increasing share of the business in this densely populated and immensely popular summer motor touring section.

Big Consuming Territory

It is estimated that somewhere around 1,124,640,000 gallons of gasoline are consumed annually by automobiles in the New York and New England district, representing about 14 per cent of the total consumption of the entire United States. At the end of 1924 there were 1,142,576 motor cars registered in the New England States and 1,412,879 in New York State, a total of 2,555,455. The following table shows the cars registered at the end of the year, the population per passenger car and the estimated gasoline consumption:

	Cars Registered	Population Per Pass. Car	*Estimated Gasoline Consumption Gallons
New England—			
Connecticut	217,227	8.95	95,480,000
Maine	127,178	7.19	55,880,000
Massachussetts	570,578	8.28	251,240,000
New Hampshire	70,922	7.03	31,240,000
Rhode Island	95,482	8.01	42,240,000
Vermont	61,179	6.18	26,840,000
Total	1,142,576	...	502,920,000
New York	1,412,879	9.21	621,720,000
Total New England and New York	2,555,455	...	1,124,640,000
Total United States	17,591,981	6.44	7,780,625,000

*Based on estimated consumption of 440 gallons per motor vehicle registered.

It is believed that the estimate of total gasoline consumption in the New York district is fairly accurate although it apparently does not take into consideration the factor of sales to cars touring the section and registered in other States. However, a check on the total sales of gasoline upon which taxes were paid in the States having a gasoline tax, namely. Connecticut, Maine, New Hampshire, Rhode Island and Vermont, shows the estimate to be approximately correct for those States.

Large Companies Compete

The large companies established and actively establishing themselves in the New England district are the Standard Oil Co. of New York, Gulf Refining Co., The Texas Co., Tide Water Oil Co., Atlantic Refining Co., Pan-American Petroleum & Transport Co., Cities Service Refining Co., Pure Oil Co., Sinclair Consolidated Oil Corp., all represented with their own stations as well as supplying dealers throughout the territory in different degrees of volume. The Standard Oil Co. of New York probably does 50 per cent of the total business. The Gulf Refining Co. ranks second, probably well above all the remaining companies except The Texas Co., which probably ranks a close third. Numerous smaller companies market both directly through their own filling stations and to dealers, including the New England Oil Refining Co., the Beacon Oil Co., both with refineries on the New England Coast.

In and around the Greater Boston there are numerous gasoline distributing companies, the most promising being the Jenney Co. and the Metropolitan Filling Station, Inc. Ever since mid-summer these companies, as well as other dealers much smaller in their operations, have been selling gasoline under the tank wagon and service station prices of the larger companies. Three days prior to the last cut of the Standard Oil Co. of New York, when its tank wagon market was 18 cents and its service station price 22 cents, the Jenney Co. announced a cut of 2 cents under these prices and was followed by the Metropolitan Filling Station. Other small dealers in outlying sections followed, and on the surface it is apparent that the Standard Oil Co. and other large companies were forced to cut to meet these prices.

Mayor Sells Gasoline

One of the sore spots in the New England market for the last two years has been in Chelsea, outside Boston, which has its "Governor McMaster" in Mayor Quigley, who last year started to market gasoline at his own pumps at about 5 cents under the retail market. He was enabled to maintain several pumps operted by himself as an individual and not as a town official and sell gasoline under the previling prices throughout the summer and he attacked the oil companies because of their prices. This year he again started his pumps and when at the end of May there was a retail market in and around Boston of 26 cents and a tank wagon market of 22 cents, he retailed at the latter price. It is understood that he has two pumps in Chelsea and one in Revere. He buys in tank car lots when the margin is wide.

That is but one example of how the small jobber or dealer has been able to take advantage of the wide margin that has obtained between the tank car market and the tank wagon market. In fact, the advantageous margin to the dealer is even wider for he gets a 4-cent differential between the tank wagon and the retail price. The public is lead to believe that the oil companies are trying to get too much for their gasoline with the continued success of the small dealers in underselling and in representing, with some degree of truth, that they are forcing down the price that the consumer has to pay. Political capital is being made of the situation, and the oil companies are not only finding this a serious factor but some report that cutting has become such a habit that the buying public shows a disposition to look for gasoline bargains.

How Spread Varied

The spread between the gasoline delivered at New England points in tank car lots and the service station price has been as high as 15 cents at times. The last cut of the large companies was the second made in August. Early in August when the tank wagon price was 20 cents and the service station price 24 cents, the spread was 6½ cents to 7 cents between that price and the tank car market, and 10½ cents to 11 cents between that price and the service station price. In other words, gasoline could be obtained deliver in tank car lots at 13 and 13½ cents a gallon. When the tank wagon price was reduced to 18 cents a gallon, the tank car delivery was about 12½ cents to 13 cents. The present tank wagon price is 16 cents in Massachusetts and tank car lots are around 12 cents a gallon. Thus, the margin of the small dealers who have been buying in tank car lots has been cut down to 4 cents as between the tank car and service station price.

As a result of the drastic cuts there is considerably less evidence of underselling on the New England highways at the present writing than was the case a month ago, and sentiment is somewhat more optimistic. With the facts as stated, it is apparent that bulk gasoline delivered in New England has made the price market, this applying to tank car, barge and tanker deliveries. California gasoline has come into New England in large quantities. Tank car shipments are made from refineries as far south as Philadelphia and from Bayonne and New England plants which also ship by tanker and barge.

Pan-American Enters

Probably the most active of the large companies newly entering the gasoline distributing business in New England is the Pan-American Petroleum & Transport Co., now affiliated with the Standard Oil Co. (Indiana). This company is opening its own stations and has now established stations in Portland, Me., Boston and Springfield, Mass., Hartford, Worcester, Bridgeport and New Haven, Conn., Portsmouth, N. H., and Providence, R. I.

The Atlantic Refining Co. has numerous new stations scattered throughout New England and is understood to supply these by tank car shipments from its Point Breeze plant near Philadelphia.

Competition for pump installation and in service station location is apparent throughout New England on the part of all the large companies, but generally speaking there is no evidence of a price war between the various interests involved. It is a struggle for gallonage, and has potentialities as regards a real warfare but this season has been practically a repetition of last year in that the tank car buyer has forced down the market and in that case has proved theoretically the thorn in the side of the oil business. The oil business, however, sold this buyer his gasoline, and in many cases in New England it is literally true that company filling stations were competing against their own gasoline sold by other dealers well under the service station price.

territory around the various large New England cities.

Oil burner manufacturers are well entrenched in the district where much of the pioneer work of establishing the domestic oil burner on a practical basis was successfully carried on, and they are in a position to meet all the growing demands being made upon them. Practically all the larger oil companies operating in New England now have tank truck delivery of furnace oil and heavy fuel oil to take care of demand for homes, office buildings and factories in the more populated sections.

NEW ENGLAND TURNING TO OIL WEARIED BY ANTHRACITE DISPUTE

By L. M. Fanning

BOSTON, Mass., Sept. 19.—With New England declaring its independence of anthracite, very tangible evidence of the revolt which has been brewing for some time and which was brought to a head by the anthracite strike beginning September 1, is seen in the increase in domestic oil business recently.

A big gain in the use of domestic oil burners in this district during the coming winter is forecast by the constantly increasing number of permits for such burners being filed throughout the district and particularly in the suburban

Among the companies making such deliveries are the Standard Oil Co. of New York, Gulf Refining Co., Pan American Petroleum & Transport Co., Cities Service Refining Co. and Beacon Oil Co. Officials of these companies state that they anticipate a large increase in business for home burners as the winter season advances.

According to oil burner interests, New England home users have taken to heart the recurrence of coal strike conditions and are turning to oil as the logical substitute fuel for their houses. They are satisfied that they need fear no shortage of oil, have been well educated as to the convenience of oil, and have needed only the certainty of the failure of agreement between John L. Lewis and the anthracite operators to take on a large scale the step of converting over their furnaces from coal to oil.

Governor Fuller's Warning

That New England is in earnest in its efforts to free itself from its dependence upon anthracite is shown by the conference of New England Governors held in Boston in August just prior to the miners' final strike notice. The conference was called by Governor Fuller of Massachussetts and it was the occasion of launching a vigorous campaign for the encouragement of the use of substitutes for hard coal. In a statement of purposes and aims of the conference, Governor Fuller said in part:

"New England has long been the most profitable market for anthracite in the country. While other sections of the United States use bituminous coal, coke and other fuels in place of anthracite, Massachusetts and New England have appeared to prefer and hold to anthracite. If anthracite could be purchased

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Mixed Base Crude Available for Lubs

Amorphous Wax Heretofore Impossible to Extract in Manufacture of Lubricating Oils Now Removable by New Process

By James W. Weir*
Ventura Refining Co., Fillmore, Cal.

NEW METHOD OF WAX EXTRACTION FROM PETROLEUM PRODUCTS

This article describes in detail a new process worked out in the plant of the Ventura Refining Co., Fillmore, Cal., using a finely divided porous substance such as diatomaceous earth as a filter aid for wax extraction from lubricating oil stocks. By the process amorphous wax, semi-crystalline wax, waxes of any nature, may be extracted which cannot be extracted by the present practical method employed, such as pressing, settling or centrifuging. This will make available for lubricating oils all mixed base crudes, which are very abundant throughout the world, from many of which by other methods it has heretofore been impossible to extract the amorphous wax in the manufacture of lubricating oils.

The general public, most of the oil producers, and even many refinery men, are under the impression that all of the crude petroleum produced in California is of asphaltum base and contains no paraffin wax. This impression is largely brought about and strengthened, particularly on the West Coast by service station operators and by the distributors of asphaltum base lubricating oils, who generally refer to paraffin base lubricating oils as "eastern oils" and to asphaltum base lubricating oils as "western oils," and thus convey the impression that all oils coming from the East are paraffin base and all oils from the West are of asphaltum base, when it is a fact that many oils manufactured in the East are of asphaltum base, and many oils marketed and sold as Eastern oils in the West are blends of asphaltum and paraffin base oils.

Paraffin Base Crude

As a matter of fact, a large percentage of the crude oil produced in California contains paraffin wax, and it has been difficult at times and probably will become more difficult in the future to supply the demand for cold test crude oil which contains no paraffin wax for the requirements of asphaltum base lubricating oil stock, particularly in the State of California. Only a small proportion of the crude oil produced in Southern California contains no paraffin wax.

Paraffin Base vs. Asphaltum Lub Oils

While there is a large market and an ever increasing demand for lubricating oils of low cold test made from asphaltum base crude petroleum, there seems to be a greater demand for lubricating oils made from paraffin base crude petroleum, for which the public is willing to pay a materially higher price. While it is not my intention to enter into a discussion of the relative merits of lubricating oils, among the reasons that a higher price may be obtained for lubricating oils made from paraffin base crude are, that it flashes and boils at higher temperatures, shows greater resistance to vaporization, and its viscosity does not break down as readily under increase of temperature between 100 degrees Fahrenheit and 350 degrees Fahrenheit.

The fact that the consumer will pay a higher price for lubricating oils made from paraffin base crude and that there is a demand from the discriminating public, makes it important that ways and means be devised for extracting the paraffin wax from the so-called mixed base crudes, which are very abundant in California and other parts of the world.

Nature of Wax in Crude Oil and Old Methods of Extraction

Paraffin wax is generally found in crude petroleum in an amorphous or non-crystalline state, and occurs largely in the lubricating oil fractions. In the manufacture of lubricating oil, therefore, it is necessary that it should be extracted and thereby it becomes a by-product of lubricating oil manufacture.

There are now three well known methods of paraffin wax extraction, namely:

By converting the amorphous wax into a crystalline structure by distillation at a temperature sufficient for decomposition, and then extracting the crystalline wax with filter presses at low temperatures;

By diluting a heavy lubricating oil stock containing amorphous wax, thus creating a differential in gravity between the wax and the solution, whereby at low temperatures the wax may be settled out, or

Separated and extracted by centrifugal force.

These methods are well known, and I will not attempt to describe them in detail; however, it has been found that these methods, particularly the settling and centrifuging methods, are **impractical** on lubricating oil stocks made from many mixed base crudes. It has also been found impossible to extract wax by the present settling or centrifuging methods from overhead stocks made from any crude because of its partial crystalline structure. By "overhead stocks" is meant distillates distilled off the crude, and not residuums. Crystalline paraffin wax or that which is partially crystalline cannot be extracted by either the present settling or centrifuge methods.

The term 'mixed base crude" as used in this article is not meant to include Mid-Continent crudes which contain only a small quantity of asphaltum. It is only meant to cover crudes of the type found in Southern California and other parts of the world which contain asphaltum in substantial amounts.

New Method Developed

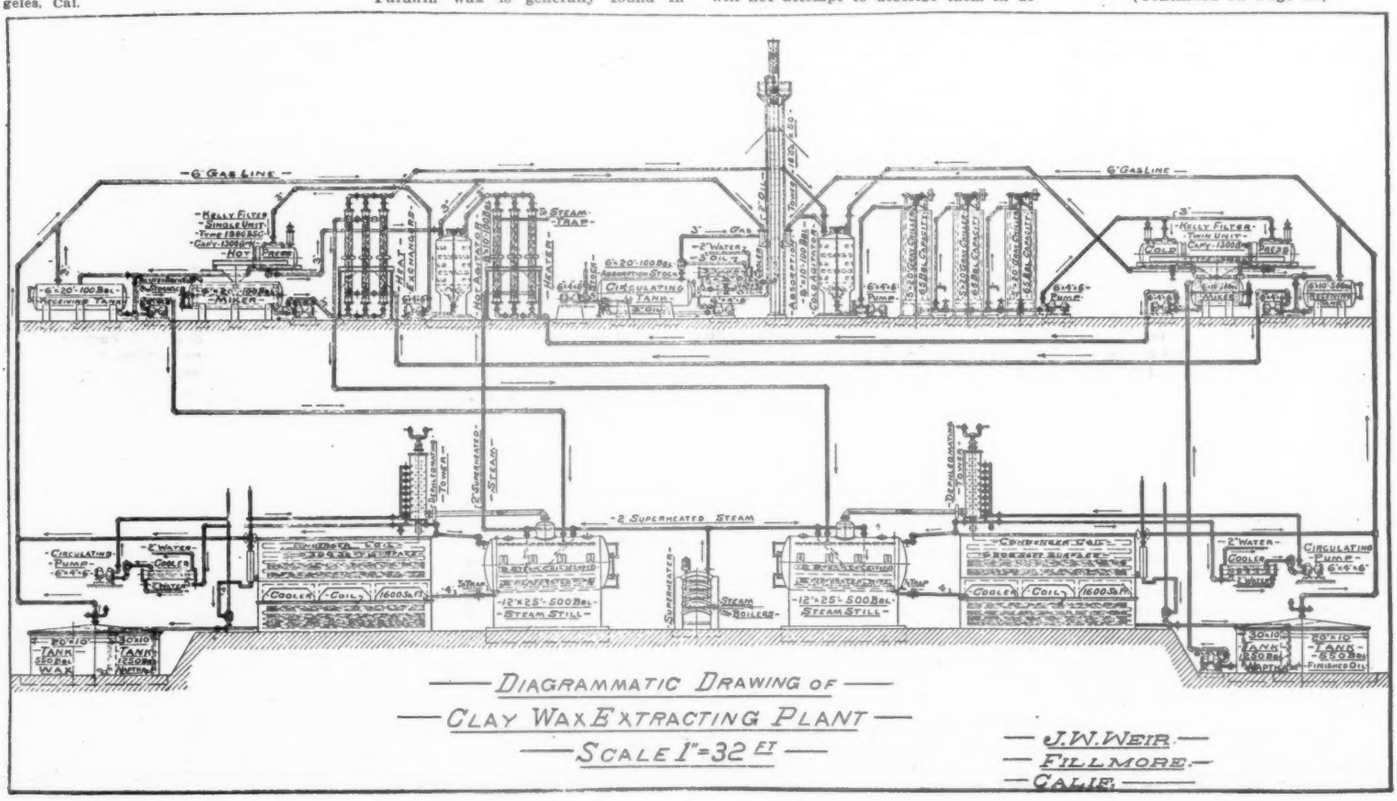
To meet this situation we have developed a method here in California whereby we hope to make available for lubricating oil all lubricating oil stocks in whatever crude they may be found whether of pure paraffin base or mixed base in any proportions, and whatever form the wax content may be.

This new method makes it possible to reduce a mixed base crude for asphaltum, throwing all wax and lubricating oil stock overhead, and then to reduce the overhead lubricating oil stock to viscosity and to extract the wax therefrom.

There is nothing mysterious about the process; indeed, it is very simple, and rests in changing the filter cake from an impervious mass to a porous substance in the filtering process by the use of a

(Continued on Page 84)

*From a paper read before a meeting of the American Chemical Society at Los Angeles, Cal.



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MISTAKES IN JUDGMENT

With the peak of the season of gasoline consumption passed consideration of the factors which prevented 1925 being a better year for the industry may point the way to avoiding such mistakes of judgment in 1926.

It is true that at the opening of 1925 there seemed to be a very definite determination all around to avoid the errors of 1923 and 1924 and to a large, but not sufficient extent, the industry tried to do so.

Primarily the greatest mistake was failure to make an adequate study of the statistical position of the business.

Not enough allowance was made for the increased recovery from crude by the more efficient methods of manufacture.

Not enough attention was given to the possibilities of California.

Throughout the season the stocks in dealers hands have been a matter of conjecture rather than approximate calculation.

The increase in demand alone appears to have been estimated within probability, but miscalculation or lack of calculation of potential supply, the other chief factor in the equation, practically upset the market.

There has been but one verdict in all the inquests held on the failure of 1925 to meet expectations—overproduction in the manufacturing end of the business.

The situation in New England, described in an article elsewhere in this issue, is instructive. The mayor of Chelsea was able to undersell the market throughout the summer by buying in tank car lots when the margin was wide.

As this article says, the oil business sold this buyer his gasoline and in many instances in New England it was literally true that company filling stations were forced to compete with their own gasoline sold by other dealers well under the service station price.

In short, in the struggle for gallonage there has been a tendency to forget that costs and return on the investment must likewise be considered.

You do not find the automotive industry, for example, doing business that way, or the steel business, or even the coal business, which also suffers from overproduction.

Read the weekly reports on the steel market published in The Oil and Gas Journal and it will be found that production and demand are kept in proper relation.

Production may drop one month to 65 per cent of capacity and rise to 90 per cent in another month, dependent upon demand. The result, of course, is that the prices of steel products are kept on a fairly even keel with no such wide fluctuations as in petroleum products and no mayors or governors underselling the market.

Ambition for tonnage does not entice the steel men to the methods that oil men so often display in the scramble for gallonage.

Why should not the manufacturing branch of the oil business be able to restrict its output as successfully?

Fear of prosecution under the anti-trust laws for attempting to keep production in relation to demand has not led other industries to break their own markets by overproduction.

There can be no law requiring anyone to overproduce his product. There is no law preventing anyone from assembling information that will tell when production and demand balance.

Restricting production in keeping with demand does not necessarily imply artificial prices. It simply assures that prices will be in keeping with costs.

There is no more danger, under such restriction, of excessive prices for petroleum products than for steel products or automobiles. The very facility with which the industry has been overproducing assures against that.

If prices rose to offer more attractive profits does anyone suppose restriction of production could be continued, in the light of the overproduction that has occurred even with market breaking prices?

The oil business has been letting the buyers fix its prices too long. So long as it permits that condition it cannot expect much improvement.

On the other hand, if it resumes control of its own products and prices it may become as stable as the steel, automobile, or other businesses which match their production with their markets.

It should be remembered also that the oil business is additionally handicapped by being the one business whose prices, besides being fixed by the buyers, are further distorted by the adding of varying State taxes on its product which the public, in most cases, attributes to the greed of the industry instead of the rapacity of the politicians.

Since overproduction is so clearly indicated as the cause of the trouble restriction of production is just as clearly the remedy.

It was not overproduction during the summer that brought about the recent slump in the market. It was overproduction last winter when the industry was putting its products in storage.

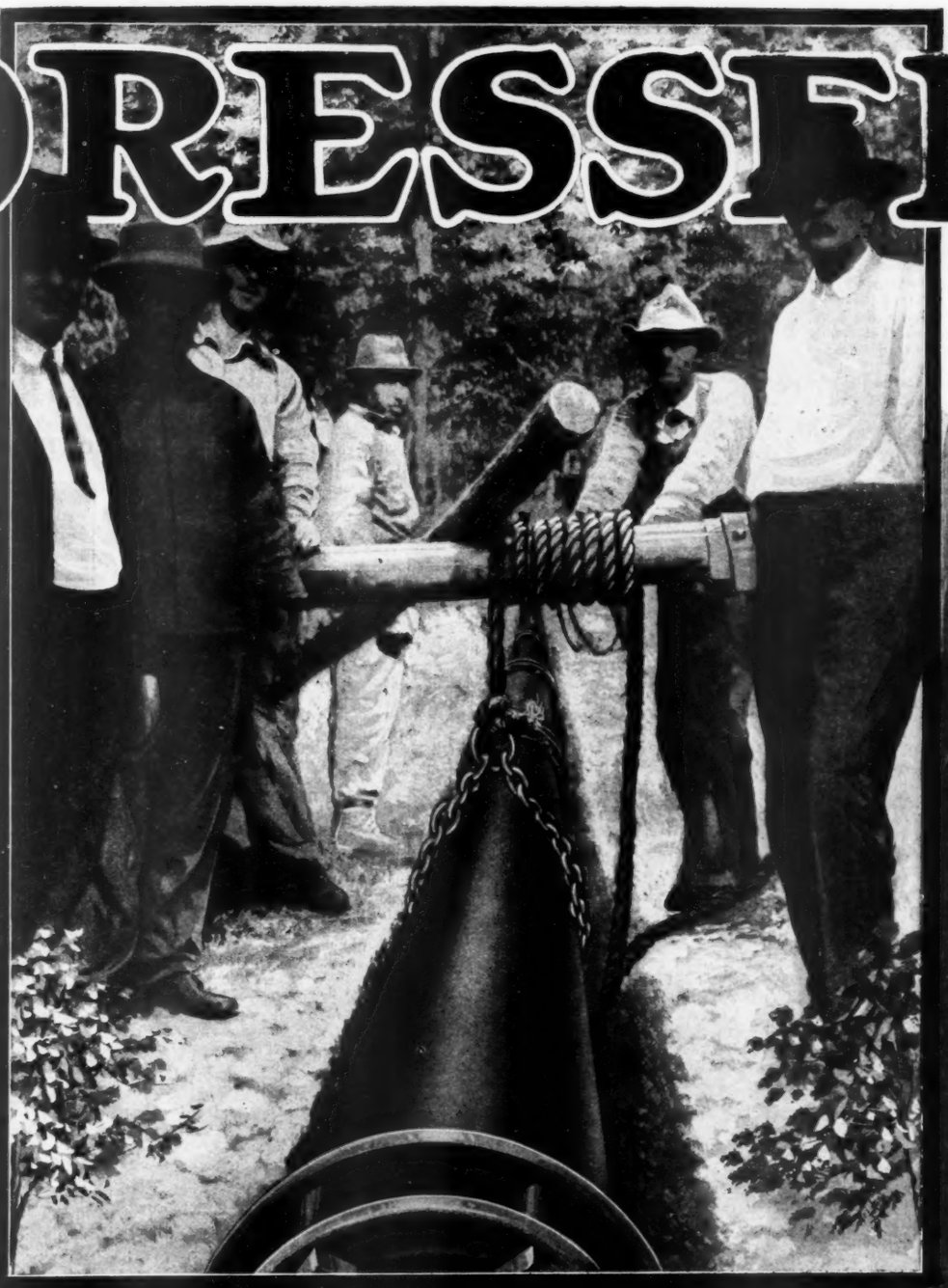
In a few weeks time, following the custom of the trade, many refiners will begin preparations to add to storage during the winter in anticipation of next summer's demands. The Bureau of Mines' figures for November usually show an increase in stocks during that month.

When the refining industry was less capable of meeting increased demand and there were very much smaller stocks in storage there was more reason for speeding winter production to take care of summer consumption.

But with stocks at their present figure and refining capacity so largely in excess of any anticipated need, considering the increased recovery through cracking, the use of natural gasoline and the much greater efficiency of manufacturing operations generally, there is less necessity for piling up stocks in winter.

If the refining industry will consider that its probable stocks on November 1, with comparatively little addition during the winter, will be ample, in conjunction with normal operations throughout the coming year, to meet all conceivable demands next summer, it should be able to avoid repeating the experiences of 1923, 1924 and 1925, when the market was broken by a summer slump caused by the dumping of stocks in the effort to reduce excess storage from the previous winter.

DRESSER



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DRESSER COUPLINGS DOMINATE

Late News From the Fields

NORTH CENTRAL TEXAS

FORT WORTH, Tex., Sept. 15.—The Baker wildcat test of McCamey and others in southwest Upton County, about 30 miles southwest of the Big Lake Field in Reagan County, is showing promise of a producer. The well is reported standing 1,800 feet in oil and still rising. The sand has just been gone into at 2,156 feet. This sand is from 800 to 900 feet higher than the pay in the Big Lake Field and about 300 feet higher than the pay in the Powell well in Crockett County. All formations in the Baker test have been running high, the log of the well shows. Practically all the large companies have acreage near the well.

The Cross Plains townsite pool in the extreme southeast corner of Callahan County has three new producers just recently added to the field. The best is Weiler Brothers' No. 1, on Block 89, Cross Plains townsite, and which was reported to have an initial production of about 10 bbls. an hour and is now making oil on the pump at the rate of 180 bbls. daily. The well is near the south city limits. Sand was found at 1,424 feet and was drilled into 7 feet.

The two other producers are north of the discovery well and are good for about 75 bbls. each from sand at 1,427 to 1,429 feet. They are the White and Harris well, on Block 25, and the Mook-Texas Oil Co.'s well on Block 31. They are offset wells and both have been put on the pump.

In South Archer County there is a new producer in semi-wildcat territory, Jones and others' No. 1 Darlick, southwest of the Stampfli-Roberts Pool, and a half mile away from production, being that distance from the Humble Oil & Refining Co.'s production on the Brom lease. It is showing for a production of between 75 and 100 bbls. daily from sand at 1,414 feet.

GULF COAST

HOUSTON, Tex., Sept. 15.—Gulf Production Co.'s No. 31 State Land, in the Goose Creek Pool, is flowing 1,500 bbls. at 2,850 feet. The Gulf Co.'s No. 8 Chesson, in the Orange Pool, is flowing 1,000 bbls. at 4,650 feet.

The Rio Bravo Oil Co.'s No. 1 Settegast at Pierce Junction, which came in late last week flowing 2,500 bbls. at 3,875 feet, is now flowing 1,600 bbls., showing 25 per cent water and 1 per cent sediment.

The Vacuum-Gulf Co.'s joint No. 3 Miller at Lockport, La., is holding up at 2,300 bbls.

The Jackson County Syndicate's No. 3 Drushell, 7 miles west of Edan, Jackson County, is a salt water well at 2,770 feet. It is the fourth salt water hole drilled there. The district is looked upon as a prospective gas field, but future developments must be south and west, as other directions have been condemned by dusters or salt water sands.

MEXICO

TAMPICO, Mexico, Sept. 12.—International Petroleum Co. scored an excellent completion in its No. 2 Las Piedras, in the old Panuco Pool, northern fields. The pay was tapped by the drill at the shallow depth, for this sector, of 1,700 feet, and it is estimated that the well has a potential head of 30,000. The wells is closed in pending the laying of a gathering line. This No. 2 is located in the center of the International's holdings in the Las Piedras, which is west and a little north of the discovery well at Panuco.

SOUTHWEST TEXAS

SAN ANTONIO, Tex., Sept. 15.—No. 1 Robert Gwinn, 2,100 feet south of the Gulf Production Co.'s No. 2 Riddle in the Lockhart Field, has set casing and will test in the Serpentine with the bottom of the hole at 1,890 feet. The well was announced as the Bailey & Blum well. They were the drillers. The well belong to W. A. Stephens and associates of the Bright Oil Co.

The well has a showing of oil that indicates a possible producer. It would greatly extend the field. Gulf Production Co. recently extended the field considerably to the south with the No. 2 Riddle, a 150-bbl. well. No. 1 Robert Gwinn has plenty of Serpentine to be a producer. It stopped when the drill began to enter shale and gumbo at 1,890 feet and after going into a gas pocket that cleaned the hole of fluid.

OKLAHOMA

Elliott, Smith and others' No. 19, C SE NW NW, Section 30-21-12, was flowing 63 bbls. an hour on Tuesday evening, and had produced over 14,000 bbls. of 48.3 gravity oil (corrected), in five days. The Kewanee Oil & Gas Co., which completed a well in the upper Wilcox in the SE cor. SW, Section 19-21-12, will drill out the plug and go down to the sand in the Wilcox series from which the Elliott well is producing and the Tidal Oil Co. will offset it to the east, or in the SW cor. SE, Section 19 and the Barnsdall Oil Co. will drill in the NW cor. NE of Section 30. Elliott and others have made a location just west of their big well. All will be Wilcox tests.

The South Braman Field in Kay County is making 19,260 bbls. from 14 wells and the discovery well, Herbert Oil Co.'s No. 1 Townsite has gone dead again.

The Garber Field in Garfield County is making 34,688 bbls. from 15 deep sand wells and the shallow wells. The field is also making 6,800 bbls. of water. Sinclair Oil & Gas Co.'s No. 30 Belveal, NE cor. SW NE, Section 24-22-4w, is making 42 bbls. a day from a total depth of 4,498 feet.

In the Thomas Pool, northwest of Tonkawa in Kay County, the Marland Oil Co.'s No. 1-A Thomas, SW cor. SW, Section 15-25-2w, is making 8,227 bbls. Marland Oil Co.'s No. 5 Thomas, NW cor. NW SW, Section 15-25-2w, is drilling in lime at 4,355 feet with nothing showing.

In the South Braman Pool the Comar Oil Co.'s No. 1 Biddle, SW cor. NE SW, Section 5-28-11w, is making 5,056 bbls.

In the Davenport Field in Lincoln County, the Magnolia Petroleum Co. has completed two wells; No. 4-A Sukovaty, SW cor. NW, Section 2-14-5, made 450 bbls. the first day from sand at 3,350-3,425 feet. No. 6-A Sukovtay, NE cor. SW NW, Section 2-14-5, had the sand at 3,339-3,415 feet and is drilling at 3,420 feet. It made 815 bbls. the first 24 hours.

In the Davenport Field The Texas Co.'s No. 3 Tipton, SW cor. SW, Section 2-14-5 made 380 bbls. the first 18 hours from sand at 3,308-80 feet.

In the same field the Twin State Oil Co.'s No. 4 Bigwater, SE cor. NW NW, Section 2-14-5 had sand at 3,372-81 feet and gauged 648 bbls. The Southwestern Petroleum Co. and Selby Oil Co.'s No. 7 Bagwell, SE cor. SE, Section 3-14-5, made 135 bbls. the first 15 hours from sand at 3,318-85 feet.

In the Papoose Pool the Carter Oil Co. and Sands Petroleum Co.'s well, NW cor SE, Section 1-9-9 had sand at 3,386-3,404 feet with 1,000,000 feet of gas and no oil.

ARKANSAS

EL DORADO, Ark., Sept. 15.—Last-minute news from the Smackover Field leaves conditions without material change. The Lawton sand continues to show nothing out of the ordinary aside from its tremendous gas wells and its ability to produce enormous volumes of salt water.

The Simms Oil Co.'s No. 5 Murphy, Section 28-15-15, is a 150-bbl. well from sand at 2,586-2,609 feet.

Crosbie and others' No. A-6 Lawton, Section 10-16-15, got sand at 2,608-15 feet and the well was put on air and is making 200 bbls. a day.

The Phillips Petroleum Co.'s No. 12 Giller, Section 10-16-15, tested salt water under the casing at 2,694 feet.

Hickman and others' No. 11 Graves, Section 3-16-15, shows 15,000,000 feet of gas and 150 bbls. a day of oil from sand at 2,526-55 feet.

The Unity Petroleum Co.'s No. 14 Roper, Section 3-16-15, is blowing wild, 20,000,000 feet of gas and 10,000 bbls. of salt water from sand at 2,541 feet.

The Lion Oil Refining Co.'s No. 6 Graves, Section 3-16-15, was junked and abandoned at 2,340 feet.

The Southern Crude Oil Purchasing Co.'s No. 5 Lytell, Section 3-16-15, was completed as a 40,000,000-foot gas well.

C. F. Colcord's No. 3-A Laney, Section 31-15-15, tested 25,000,000 feet of gas at 2,561 feet.

The Natural Gas & Petroleum Co.'s No. 9 Laney, blew in with 50,000,000 feet of gas and a show of salt water at 2,702 feet. The derrick was blown down and the well was flowing wild.

The Phillips Petroleum Co.'s No. 10 Laney, Section 31-15-15, was junked and abandoned at 2,462 feet.

The Gulf Refining Co.'s No. 8 Bennett, Section 33-15-15, is a 40,000,000-foot gas well at 2,578 feet.

The Phillips Petroleum Co.'s No. 8 Joyce, Section 33-15-15, which was dry at 2,604 feet was a 51,000,000-foot gas well at 2,611 feet.

The Arkansas Fuel Oil Co.'s No. 9 Snyder, Section 34-15-15, was blowing wild. The plug was drilled out at 2,490 feet and the well started off as a gasser.

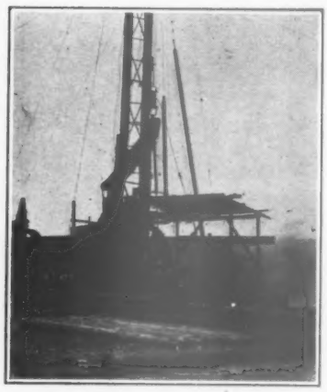
The Humble Oil & Refining Co.'s No. B-4 Arnold, Section 26-15-16, is a 40-bbls. well in the Nacatoch sand.

The Ohio Oil Co.'s No. 3 Lewis, is a 35-bbl. Nacatoch sand well.

J. D. Reynolds junked and abandoned No. 1 Keller, in Section 25-15-17, at 2,020 feet.

At the close of the week the total production of the Smackover heavy oil district was 178,000 bbls. a day. Only 11 Graves sand wells were flowing naturally; 64 were being blown by gas or air; 417 were on the pump and 156 wells had "gone dead," total number of oil wells completed in the Graves sand 648; in the Lawton sand 30 of the 89 oil completions are dead and of the remaining 59 only 14 were pumping and 45 still flowing.

OSAGE WELL OPENED

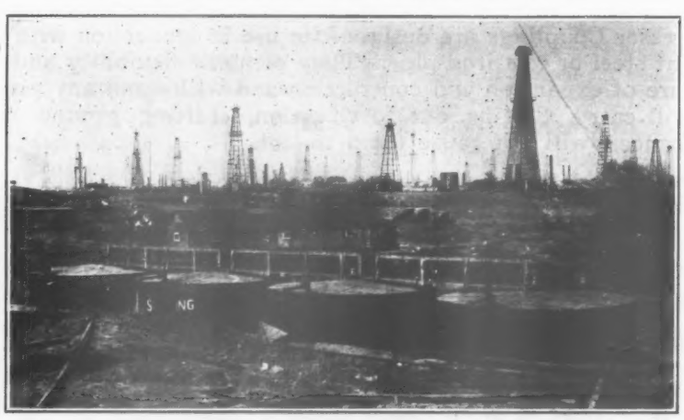


The W. C. Elliott and others' big Osage County, Oklahoma, well was opened up while being connected to a separator Sunday, spraying a golden flood of oil into the air at the rate of 62 bbls. an hour. It is producing from a sand below the regular Wilcox pay in this area.

OWNERS OF OSAGE WELL

Left to right: H. C. Smith, Columbus, Ohio; Harry E. Stewart, president First National Bank, Woodsfield, Ohio; and W. C. Elliott, of Tulsa.

SCENE IN GARBER FIELD, OKLAHOMA



The Baku rig in the foreground is the Mid-Continent Petroleum Corp. and Marland Oil Co.'s No. 45 School Land 2/64, Garber Field, still doing better than 6,000 bbls.

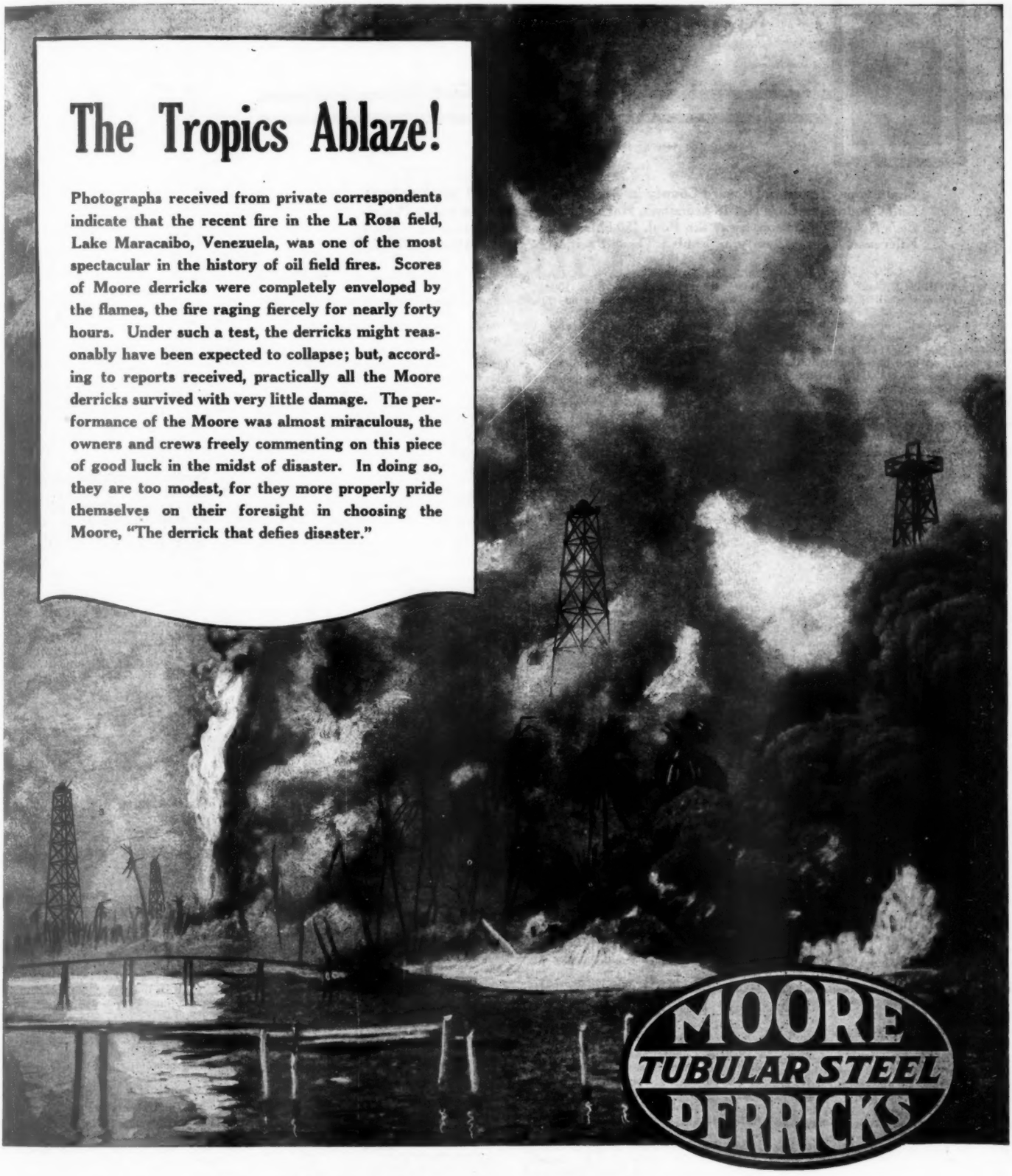
SOME BIG BUYERS ARE STORING CRUDE OIL

The Prairie Pipe Line Co.'s shipments for August were 4,318,497 bbls., or a daily average of 139,306 bbls. per day. In July the company delivered an average of 157,204 bbls. per day, which shows a falling off of 17,898 bbls. per day in August.

The Prairie Oil & Gas Co., which is the Prairie Pipe Line Co.'s largest customer and the largest buyer of crude oil in the Mid-Continent Field, stored oil in July and it is said to be storing around 30,000 bbls. a day in September. The Humble Oil & Refining Co., a large buyer of crude in north and east Central Texas, is also reported to be storing crude. The Sinclair Crude Oil Purchasing Co. and the Gulf interests in Kansas, Oklahoma and Texas, are still drawing from storage. The Magnolia Petroleum Co., in Oklahoma and Kansas, reported little difference in the quantity of its crude stocks at the close of July and August.

The Tropics Ablaze!

Photographs received from private correspondents indicate that the recent fire in the La Rosa field, Lake Maracaibo, Venezuela, was one of the most spectacular in the history of oil field fires. Scores of Moore derricks were completely enveloped by the flames, the fire raging fiercely for nearly forty hours. Under such a test, the derricks might reasonably have been expected to collapse; but, according to reports received, practically all the Moore derricks survived with very little damage. The performance of the Moore was almost miraculous, the owners and crews freely commenting on this piece of good luck in the midst of disaster. In doing so, they are too modest, for they more properly pride themselves on their foresight in choosing the Moore, "The derrick that defies disaster."



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North-Central Texas Field

By George R. Kelley

Shallow pay found in Howard County in Deep Rock Co.'s No. 1 Scott wildcat. Gulf Production Co.'s No. 18 Monohan, Harmel Pool, makes 300 bbls.; Prairie Co.'s No. 2 Richardson, Swastika Pool, 150 bbls.; Plains Production Co.'s No. 7 Kilcrease, Young County, 600 bbls.; Texas Pacific Co.'s No. 2 Hand, 425 bbls.

FORT WORTH, Tex., Sept. 14.—The discovery of a shallow pay oil sand in the southern part of Howard County, the value of which has not yet been determined by any means, is considered the outstanding news of the week in North Texas oil field development. Other features of interest are a big decline in the number of completions as compared with a week ago, and a handsome increase in the average daily production of oil from this territory.

The Howard County discovery may develop considerable significance as work is furthered at the No. 1 Scott wildcat test of the Deep Rock Oil Co., where the discovery was made. The test is in Section 88, Block 29 of the Waco & Northwestern Railway Co. survey of Howard County, on the Scott lands. The Deep Rock Oil Co., Texas operating head of the Shaffer Oil & Refining Co., took over the lease about 60 days ago, and drilling on the well was started about 30 days ago.

Late this week a sand was entered at 1,303 feet, after passing out of the lime formation, and at a total depth of 1,305 feet, or 2 feet in the pay sand, the well is showing for considerable oil. Apparently conservative estimates are that the well in its present condition will in all probability be good for about 30 to 40 bbls. daily. J. E. Fitzpatrick, head of the Deep Rock Co., is at the well, and as yet it has not been determined whether the well will be drilled deeper or a thorough test made of the present showing.

The well is a wildcat and is located on what is generally termed the Reagan County- Mitchell County trend of western Texas. The well is 25 miles south and west of the Westbrook Pool in Mitchell County, where production is had at around 2,900 to 3,000 feet, and close to 50 miles northeast of the Big Lake Field in Reagan County, where big production is had at about the same depths.

Most of the major companies operating in western Texas hold at least protection acreage in the vicinity of the Deep Rock showing, and about the least that can be expected from the well is a greatly intensified play along the Balcones Fault area. This is by far the best shallow showing that has been found anywhere in that general territory.

Fourth Well in Scurry

In what may be regarded as this same general territory, the Northwest Oil Corp. is reported to be preparing its No. 1 Newman, in the south part of Scurry County, for the pump. The well is in the 1,800-foot pay sand and is estimated to be good for a small pumper, probably 30 to 40 bbls. daily. This makes the fourth producing well for Scurry County.

In the south Archer County district there are two near completions showing for ususually good producers, one by the Gulf Production Co. and one by the Prairie Oil & Gas Co. The Gulf's well is No. 18 on the company's Monohan lease in the Harmel Pool. It got pay sand at 1,285 feet and has been drilled to a total depth of 1,296 feet where it is making around 300 bbls. daily.

The Prairie Oil & Gas Co.'s new well is No. 2 Richardson in the Swastika Pool or property taken over this year by the Prairie from the Shamrock Oil Co. It is estimated to be good for 150 bbls. daily from 10 feet of pay sand topped at 1,295 feet.

The Gulf Production Co. also has a new well in northern Young County, No. 7 Swaim, estimated good for 75 bbls. at 1,000 feet. A late completion in northern Young County and one of the largest reported from that district in some time, is the Plains Production Co.'s No. 7 Kilcrease which is good for 600 bbls. daily at 1,014 feet. No. 4 Dunagan of Weaver and Pois, also in northern Young County, is a good producer just recently put on the completion list. It is making 350 bbls. from a total depth of 1,012 feet.

The completion of the Texas Pacific Coal & Oil Co.'s No. 2 Hand well in southern Stephens County is attracting considerable attention to the Livingstone Pool, in which it is located. The well had an initial production of about 480 bbls. daily and late in the week is reported to be gauging 425 bbls. daily. It is producing from the Ranger sand.

Cross Plains Producer

One other fairly good producer has been completed in the new Cross Plains Field in Southeastern County. It is No. 1 Block 31, Cross Plains townsite of Wakefield and others. It is making 100 bbls. daily from the sand at 1,429 feet.

In the North Brown County area Schaffner and others' No. 1 Prather is a new producer though not yet completed, flowing 150 bbls. daily from a depth of 1,275 feet and is being drilled deeper, according to latest reports.

The Big Lake Field in Reagan County made a fair accounting of itself during the week with three completions, all of which were producers with a combined daily flush output of 4,593 bbls. or an average per well of 1,531 bbls. daily. The largest completion was the Big Lake Oil Co.'s No. 20 University which has a flush production of 2,999 bbls.

The Texon Oil & Land Co. has shot its No. 12 Group 1 University with 10 quarts of nitro from 2,960 to 2,966 feet and the production has increased from 28 bbls. an hour to 54 bbls. an hour. The same company's No. 17 Group 1 University is a new producer not yet completed. It is flowing 30 bbls. an hour at 2,937 feet.

Reagan Increase

Reagan County now has a daily production of about 38,450 bbls., the peak of output since development started there. Those in close touch with the field believe the absolute peak for the present field will not be far above 40,000 bbls. daily.

The Big Lake Field is responsible for practically the whole of a big increase in daily output of the North Texas territory for this week. Averge daily runs for the week ending September 10 were 174,568 bbls., compared with a total the previous week of 168,695 bbls., showing a daily average gain of 5,873 bbls.

While production showed a gain the week fell far under the previous week in the number of completions, having a total of only 96 new completions compared with 120 the previous week, which is the record for any week this year. Of the 96 completions 50 were oil producers, 2 were gas wells and 44 were failures. The 50 new oil producers had a new flush production amounting to 8,487 bbls. daily, while the previous week 71 producers accounted for only 9,082 bbls. of new output.

The following table gives the completions by districts together with totals for the previous week for comparison:

Dist.—	Comp.	Prod.	Dry	Gas	New Prod.
Wichita	22	14	8	0	394
Wilbarger	9	5	4	0	626
Archer	23	12	11	0	738
Young	12	6	6	0	1,220
Stephens	5	1	3	1	*480
Eastland	5	3	2	0	198
Brown	3	2	1	0	175
Reagan	3	3	0	0	4,593
Wildcats	14	4	9	1	*163
Total	96	50	44	2	8,587
Last week	120	71	47	2	9,082
Difference	24	21	3	0	495

*Gas, Stephens County, 15,000,000 feet.
Wildcats, 1,500,000 feet; total 16,500,000 feet.

Production report week ending September 10.

Burkburnett

Gulf Production Co.	560	
Humble Oil & Refining Co.	401	
Magnolia Pet. Co.	2,795	
Panhandle Refining Co.	300	
Prairie Oil & Gas Co.	25	
Sinclair Oil & Gas Co.	54	
The Sun Oil Co.	115	
The Texas Co.	425	
Texhoma Oil & Refining Co.	460	
Miscellaneous	9,010	
Total		14,145

Electra

Empire Gas & Fuel Co.	980	
Gulf Production Co.	848	
Humble Oil & Refining Co.	145	
Magnolia Pet. Co.	3,900	
Panhandle Refining Co.	45	
Prairie Oil & Gas Co.	110	
The Texas Co.	3,545	
Texhoma Oil & Refining Co.	1,676	
Miscellaneous	5,983	
Total		17,232

Iowa Park

Gulf Production Co.	40	
Humble Oil & Refining Co.	398	
Magnolia Petroleum Co.	650	
Panhandle Refining Co.	30	
The Texas Co.	515	
Texhoma Oil & Refining Co.	40	
Miscellaneous	3,935	
Total		5,608

Archer County

Empire Gas & Fuel Co.	915	
Gulf Production Co.	2,235	
Humble Oil & Refining Co.	610	
Magnolia Petroleum Co.	1,436	
Panhandle Refining Co.	200	
Prairie Oil & Gas Co.	3,785	
Sun Oil Co.	75	
The Texas Co.	2,895	
Texhoma Oil & Refining Co.	2,260	
Miscellaneous	22,830	
Total		37,241

Stephens County

Empire Gas & Fuel Co.	65	
Gulf Production Co.	1,465	
Humble Oil & Refining Co.	800	
Magnolia Petroleum Co.	480	
Mid-Kansas Oil & Gas Co.	1,440	
Prairie Oil & Gas Co.	913	
Sinclair Oil & Gas Co.	85	
Sun Oil Co.	230	
The Texas Co.	1,325	
T. P. Coal & Oil Co.	1,050	
Miscellaneous	6,068	
Total		13,921

Ranger

Gulf Production Co.	289	
Humble Oil & Refining Co.	48	
Magnolia Petroleum Co.	725	
Mid-Kansas Oil & Gas Co.	221	
Panhandle Refining Co.	180	
Prairie Oil & Gas Co.	705	
Sinclair Oil & Gas Co.	345	
The Texas Co.	210	
T. P. Coal & Oil Co.	870	
Miscellaneous	2,685	
Total		6,278

Moran

Empire Gas & Fuel Co.	30	
Prairie Oil & Gas Co.	18	
The Texas Co.	435	
Texhoma Oil & Refining Co.	115	
Miscellaneous	2,765	
Total		3,363

Young County

Gulf Production Co.	405	
Humble Oil & Refining Co.	1,015	
Magnolia Petroleum Co.	498	
Mid-Kansas Oil & Gas Co.	22	
Panhandle Refining Co.	215	
Prairie Oil & Gas Co.	10	
Sinclair Oil & Gas Co.	395	
Sun Oil Co.	70	
The Texas Co.	1,065	
Texhoma Oil & Refining Co.	130	
Miscellaneous	7,215	
Total		11,040

Eastland-Comanche

Empire Gas & Fuel Co.	10	
Humble Oil & Refining Co.	168	
Magnolia Petroleum Co.	1,010	
Mid-Kansas Oil & Gas Co.	234	
Prairie Oil & Gas Co.	135	
Sinclair Oil & Gas Co.	30	
The Texas Co.	150	
T. P. Coal & Oil Co.	115	
Miscellaneous	1,728	
Total		3,580

Panhandle

Carson County	2,379	
Hutchinson County	1,635	
Wheeler County	135	
Gray County	65	
Potter County	50	
Total		4,264

Miscellaneous Pools

Wilbarger County	8,618	
Clay County	370	
Montague	395	
Jack	30	
Throckmorton	195	
Baylor County	360	
Palo Pinto County	595	
Brown County	3,180	
Coleman County	230	
Callahan County	2,970	
Mitchell County	2,577	
Reagan County	38,450	
Scurry	26	
Total		57,896
Total this week		174,568
Total last week		168,695
Gain		5,873

Completions—Wichita County

Bonchil Co.'s No. 2 Bentley, 15 bbls. at 1,176 feet; Reed & Dow's No. 10 Roller, dry at 1,652 feet; A. D. Robinson and others' No. 12 Roller, dry at 1,244 feet; S. M. R. Winters and others' No. 1 Roller, dry at 1,004 feet; Apple & Brandeberry's No. 7-A Jennings, 25 bbls. at 1,470 feet; Arco Oil Co.'s No. 3 Burnett, dry at 700 feet; Bullington and others' No. 3 Jennings, dry at 2,010 feet; Burnett Ranch Oil Co.'s No. 12 Burnett, 15 bbls. at 1,795 feet; J. H. Cotton Oil Co.'s No. 4 Roller, 12 bbls. at 743 feet; Dale Oil Corp.'s No. 12 Jennings, 30 bbls. at 1,486 feet; Kruger and others' No. 3 Waggoner, 30 bbls. at 1,810 feet; Mitcham & Logan's No. 1 Ellison, dry at 1,817 feet; O'Donohoe & Gates' No. 8-B Allen & Kemp, 56 bbls. at 1,648 feet; Ryan Petroleum Co.'s No. 87 Nance, 20 bbls. at 1,331 feet; No. 38 Nance, 65 bbls. at 1,324 feet; No. 39 Nance, 50 bbls. at 1,330 feet; The Texas Co.'s No. 302 Waggoner, dry at 2,337 feet; Texhoma-Cullum's No. 9-A Burnett, 17 bbls. of oil, 2 bbls. water at 1,810 feet; Texhoma Oil & Refining Co.'s No. 5-G Burnett, 4 bbls. oil and 12 bbls. water at 700 feet; No. 2-M Burnett, dry at 1,988 feet; White Eagle Oil & Refining Co.'s No. 4 Hooks, 20 bbls. at 1,785 feet.

Wilbarger County

F. A. Beatty and others' No. 1 Waggoner, Section 15, dry at 2,400 feet; Hoffer Oil Corp.'s No. 1 Waggoner, Section 43, dry at 2,806 feet; Humble Oil & Refining Co.'s No. 19 Castleberry, 100 bbls. at 2,321 feet; Landreth Production Co.'s No. 3-B Waggoner, 200 bbls. at 2,090 feet; Lippard Oil Corp.'s No. 1 Fluhman, dry at 2,179 feet; McCamey-Sheerin and others' No. 7 Stephens, 200 bbls. at 2,341 feet; No. 10 Stephens, 60 bbls. at 1,845 feet; Magnolia Petroleum Co.'s No. 69 fee, 66 bbls. oil and 11 bbls. water at 1,686 feet; Murchison & Fain's No. 1-C Waggoner, dry at 2,320 feet.

Archer County

Barkley & Meadows' No. 12 L. F. Wilson, 75 bbls. at 1,525 feet; Brashear & Silkwood and others' No. 1 Kemp & Kempner, dry at 1,850 feet; Bridwell and others' No. 1 L. J. Kirkland, 19 bbls. of oil and 60 bbls. water at 1,424 feet; Burns & Maxon's No. 8 L. F. Wilson, 13 bbls. at 1,414 feet; Humble Oil & Refining Co.'s No. 1-D Wilson, 8 bbls. at 1,408 feet; Jenson Oil Co.'s No. 1 A. P. Jackson, dry at 1,709 feet; T. G. Lomax's No. 5 L. F. Wilson, 120 bbls. at 1,515 feet; Muse, Robertson and others' No. 2 L. F. Wilson, 90 bbls. at 1,513 feet; Waite Phillips Co.'s No. 2-B T. B. Wilson, dry at 1,520 feet; Ray-Featherstone Oil Co.'s No. 12 A. P. Nichols, 38 bbls. at 1,621 feet; Shappell Oil Co.'s

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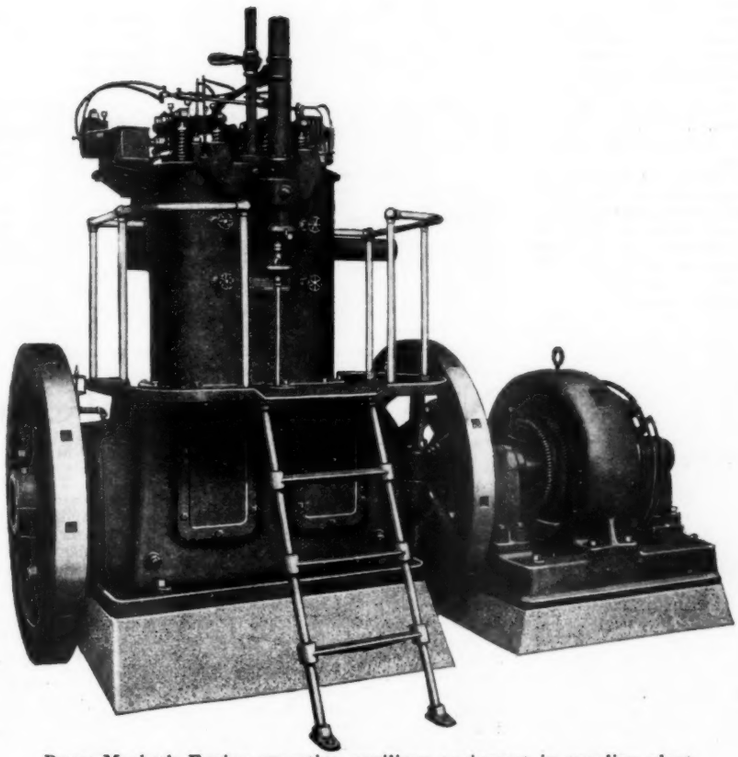

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No. 27 Jackson, 50 bbls. at 1,807 feet; The Texas Co.'s No. 1 Dale Brothers, dry at 2,024 feet; White Eagle Oil & Refining Co.s No. 3 Wilson, dry at 1,443 feet; Woodburn Oil Co.'s No. 21-A L. F. Wilson, dry at 1,610 feet; Dollman & Kellogg's No. 1 Prideaux, 18 bbls. at 680 feet; Major Petroleum Co.'s No. 10 Cowan estate, 30 bbls. at 1,083 feet; Merrick and others' No. 1 J. A. Bell, dry at 1,523 feet; S. McGregor and others' No. 8 Llewellyn and others, 62 bbls. oil and 4 bbls. water at 1,454 feet; Murchison & Fain's No. 2 Richardson, dry at 1,340 feet; Smith & Trahan's No. 1 Justice, dry at 1,104 feet; Sun Oil Co.'s No. 13 Farmer, dry at 1,484 feet; Tidal Oil Co.'s No. 1 Richardson, dry at 1,485 feet.

Young County

British American Oil Co.'s No. 1 Leberman, dry at 1,205 feet; Dale and others' No. 1 Keathley, dry at 1,053 feet; F. H. E. Oil Co.'s No. 4 Groves, dry at 450 feet; Junker & Harris' No. 1 Doyle, dry at 1,205 feet; Losh & Lehman's No. 9 Kemp, 10 bbls. at 1,094 feet; Murchison & Fain and others' No. 18-D, 50 bbls. at 973 feet; Plains Production Co.'s No. 7 Kilcrease, 600 bbls. at 1,014 feet; Ramming & Saunders' No. 1 Hunt, dry at 1,093 feet; Roamer Oil Co. and others' No. 2 Dunagan, 180 bbls. at 1,016 feet; Roeser & Pendleton's No 1 Kunkel, dry at 1,260 feet; Simms Oil Co.'s No. 5-A Carpenter, 30 bbls. at 1,036 feet; Weaver & Pois. No. 4 Dunagan, 350 bbls. at 1,012 feet.

Snowden & McSweeney's No. 6 Ackers dry at 3,950 feet; Lyman and others' No. 1 Langford, 15,000,000 feet gas at 1,936 feet; Pender Production Co.'s No. 1 Furr dry at 3,300 feet; T. P. Coal & Oil Co.'s No. 8 Adams, dry at 3,930 feet; No. 2 Hand, 480 bbls. at 3,710 feet.

Eastland County

Halmack Oil Co.'s No. 1 Gilbert, dry at 1,821 feet; Magnolia Petroleum Co.'s No. 6 Allman, 128 bbls. at 1,484 feet; Prairie Oil & Gas Co.'s No. 4 Harrell, 25 bbls. at 3,598 feet; Reclamation Oil Co.'s No. 7 Bond, dry at 1,900 feet; States Oil Corp.'s No. 5 Hise, 15 bbls. at 1,012 feet.

Brown County

Moore & Wilson's No. 4 Baxter, 25 bbls. at 1,298 feet; Schaffiner & Wilson's No. 1 Prather, 150 bbls. at 1,275 feet; Simms Oil Co.'s No. 1 Gaines, dry at 1,480 feet.

Reagan County

Big Lake Oil Co.'s No. 20 University, 2,999 bbls. at 2,928 feet; Texon Oil & Land Co.'s No. 12 University Group 1, 874 bbls. at 2,972 feet; Texon Oil & Land Co.'s No. 19 University Group 1, 720 bbls. at 2,900 feet.

Wildcats—Baylor County

T. D. Humphrey and others' No. 1 Portwood, dry at 1,500 feet; Mills Farm Oil Co.'s No. 2 Mills, 40 bbls. at 1,422 feet.

Clay County

Lone Star Gas Co.'s No. 14 E. L. Holloway, dry at 1,923 feet; J. T. Cumley's No. 1 Green, dry at 1,901 feet.

Montague County

Texhoma Oil & Refining Co.'s No. 1-A dry at 1,902 feet.

Cook County

W. J. Rawson and others' No. 1-A Aldridge, dry at 3,601 feet.

Shackelford County

Humble Oil & Refining Co.'s No. 1 Palm, 10 bbls. at 428 feet; Jackson & Kendrick's No. 1 Elliott, dry at 750 feet; Loggie & Best's No. 3 Black Brothers, dry at 1,080 feet; McCurdy & Graham's No. 1 Elliott, dry at 716 feet; Rogers & Hagan's No. 1 Sexton, dry at 915 feet; Tannehill and others' No. 14 Moberly, 1,500,000 feet of gas at 1,008 feet.

Callahan County

Wakefield and others' No. 1 Block 31, 100 bbls. at 1,429 feet.

Mitchell County

Magnolia Petroleum Co.'s No. 1 Womack, 13 bbls. at 2,630 feet.

Drilling—Stephens County

Collins and others' No. 1 Cunningham, drilling at 1,200 feet; Mid-Kansas Oil & Gas Co.'s No. 13 Hill, cleaning out at 3,295 feet; No. 17 Hill, drilling at 2,705 feet; No. 6 Hill, 2,245 feet; Mid-Tex Oil Co.'s No. 2 Cunningham, 2,266 feet; Moore and others' No. 1 Cunningham, fishing at 3,060 feet; Raney and others' No. 1 Hamil, fishing at 3,307 feet; Swensondale Oil Co.'s No. 8 Cobb, fishing at 3,323 feet; No. 1 Echols, drilling at 3,450 feet; Texas Pacific Coal & Oil Co.'s No. 1 Donnell, 1,465 feet; No. 4 Kirtley, underreaming; Barkley and others' No. 1 Hames, drilling at 4,450 feet; Cosby Oil & Gas Co.'s No. 1 Satterfield, 3,050 feet; Eidson and others' No. 3 Crowley, 725 feet; Hagaman Refining Co.'s No. 1 Hagaman, 2,800 feet; Hughes and others' No. 1 Williams, 2,390 feet; Kleinfelder and others' No. 3 Grimes, 2,700 feet; Landreth Producing Co.'s No. 1 Elliott, 2,410 feet; No. 3 Gratz, 2,650 feet; McLester Oil Co.'s No. 1 Kline, spudding in; No. 1 Langford, drilling at 3,674 feet; Moorman and others' No. 2 McClesky, fishing at 3,250 feet Phillips Petroleum Co.'s No. 1 Pace, drilling at 2,200 feet; Prairie Oil & Gas Co.'s No. 4 Ware, setting casing at 3,511 feet; Price and others' No. 1 Bruce, drilling at 2,055 feet; Quakins Petroleum Co.'s No. 11 Harmon, spudding in; Richeson and others' No. 1 McClesky, drilling at 2,130 feet; Scott and others' No. 1 Whalen, 2,720 feet; States Oil Corp.'s No. 1 Hawkins, 2,050 feet; No. 2 Sikes, 1,700 feet; Texas Pacific Coal & Oil Co.'s No. 57 Binney, fishing at 1,845 feet; No. 8 Veale, drilling at 3,795 feet; No. 9 Veale, 3,175 feet; The Texas Co.'s No. 11 Curry, 551 feet; No. 3 Vick, 2,915 feet; Walker-Caldwell No. 3 Jones, fishing at 3,785 feet.

Eastland County

Brewer and others' No. 1 Stephens, drilling at 2,705 feet; Coryelius and others' No. 2 Brashear, 1,400 feet; Gallagher and others' No. 1 Woods, 2,890 feet; Halmack Oil Co.'s No. 6 Thompson, 3,080 feet; Humble Oil & Refining Co.'s No. 5 Davis, 2,800 feet; Magnolia Petroleum Co.'s No. 7 Allman, spudding in; No. 1 Bishop, setting casing at 2,040 feet; No. 1 Folts, drilling at 1,290 feet; Mid-Kansas Oil & Gas Co.'s No. 1 Williams, 550 feet; Parsons and others' No. 1 Blackwell, 630 feet; Robert Oil Corp.'s No. 4 Ford, drilling at 930 feet; Coryelius Brothers' No. 1 Dulin, 1,200 feet; Hoffer Oil Corp.'s No. 1 Hitson, 2,390 feet; Pitzer and others' No. 1 Rust, 3,600 feet; Root and others' No. 1 Kurklin, 1,401 feet; No. 1 Luse, 790 feet; No. 1 Pelfrey, 1,490 feet; Texas Development Co.'s No. 2 Rushing, 2,160 feet.

Brown County

Adams and others' No. 1 Newton, drilling at 2,275 feet; Anderson and others' No. 1 Williams, 990 feet; Cal-Bro. Oil Syndicate's No. 2 Prather, 1,010 feet; Evans and others' No. 1 McDonough, on sand at 1,312 feet; Gillman and others' No. 17 Newton, drilling at 1,000 feet; Gillman & McMurray's No. 1 Henry, 1,400 feet; No. 6 Moore, 1,100 feet; Halmack Oil Co.'s No. 1 Hubbard, 1,215 feet; Hughes and others' No. 2 Moore, 580 feet; Infield Petroleum Co.'s No. 1 Graham, 800 feet; Mahlstedt Oil Co.'s No. 1 Madison, 1,000 feet; Mendenhall and others' No. 10 Newton, 1,200 feet; Mook and others' No. 5 Baxter, 390 feet; No. 1 Kilgore, 827 feet; Olympic Oil & Refining Co.'s No. 3 Gilliam, 2,310 feet; Slick and others' No. 1 Windham, 2,140 feet.

Reagan County

Big Lake Oil Co.'s No. 30 University, drilling at 2,565 feet; No. 31 University, 2,837 feet; No. 32 University, fishing at 2,825 feet; No. 36 University, drilling at 2,705 feet; No. 37 University, setting casing at 2,400 feet; No. 41 University, underreaming; No. 43 University, drilling at 2,470 feet; No. 44 University, 1,300 feet; No. 45 University, 2,005 feet; No. 46 University, underreaming; No. 47 University, drilling at 440 feet; No. 48 University, 200 feet; Dunning and others' No. 1 Sugg, 3,445 feet; Morland Oil Co.'s No. 1 Wilson, setting casing at 1,335 feet; Simon and others' No. 1 University, setting casing at 2,170 feet; Texon Oil & Lease Co.'s No. 22 Group 1 University, drilling at 2,575 feet; No. 23 Group 1 University, 2,240 feet No. 24 Group 1 University, 2,270 feet; No. 27 Group 1 University, 2,790 feet; No. 28 Group 1 University, 2,135 feet No. 29 Group 1 University, 2,635 feet.

Shackelford County

Brannon and others' No. 4 Elliott, drilling at 2,010 feet; Cameron and others' No. 1 Jones, 500 feet; Conley and others' No. 1 Parrish, fishing at 2,650 feet; Domestic Oil Co.'s No. 1 Colbert, drilling at 825 feet; French and others' No. 1 Diller, on sand at 833 feet; Gilliam and others' No. 1 Owens, setting casing at 780 feet; Hayes and others' No. 1 Matthews, drilling at 150 feet; Hope Petroleum Co.'s No. 1 Newell, 870 feet; Humble Oil & Refining Co.'s No. 2 Elliott, 1,030 feet; No. 1 McLemore, 2,400 feet; Kent and others' No. 1 Bernstein, 150 feet; Lake and others' No. 1 Black Brothers, underreaming; Loggie and others' No. 1 Black Brothers, drilling at 280 feet; Mid-Kansas Oil & Gas Co.'s No. 1 Newell, spudding in; McKamara and others' No. 1 Clausell, drilling at 2,260 feet; Phillips Petroleum Co.'s No. 2 Compton, spudding in; No. 1 Fry, fishing at 1,520 feet; No. 8 Parrish, fishing at 645 feet; Tannehill and others' No. 5 Myer, underreaming; Taylor and others' No. 1 Tichner, underreaming.

Palo Pinto County

Jack Dalton Oil Co.'s No. 5 Dalton, drilling at 4,010 feet; Upham Gas Co.'s No. 2 Chestnut, 3,520 feet; Adams and others' No. 2 Pollard, cleaning out at 1,701 feet; Moore and others' Slemmons, drilling at 3,000 feet; Upham Gas Co.'s No. 4 Belding, drilling at 1,965.

Callahan County

Brannon and others' No. 1 Block 85, drilling at 820 feet; Canyon Oil & Gas Co.'s No. 2 Barr, 1,300 feet; Cranfill and others' No. 1 Block 74, spudding in; No. 1 Block 90, drilling at 1,090 feet; French and others' No. 1 Hinds, 565 feet; Lowe and others' No. 1 Block 76, fishing at 1,250 feet; May and others' No. 1, Block 84, spudding in; Moore and others' No. 1 White, drilling at 800 feet; Red Moore and others' No. 1 Block 75, spudding in; Neeb and others' No. 1 Block 10, fishing at 475 feet; Skinner and others No. 1 Block 73, drilling at 730 feet; Slick and others' No. 1 Haley, 1,400 feet; Wakefield and others' No. 1 Block 88, spudding in; No. 1 Derrington, drilling at 290 feet; Warren and others' No. 1 Block 6, 1,100 feet; Weiler Brothers' No. 1 Block 83, 275 feet.

Mitchell County

Eastland Oil Co.'s No. 4 Keynard, drilling at 2,100 feet; Henshaw and others' No. 1 Scott, 1,850 feet; Green and others' No. 1 Ellwood, 125 feet; Snyder and others' No. 1 Keith, on sand at 3,020 feet; California Co.'s No. 14 Morrison, drilling at 2,565 feet.

Howard County

Deep Rock Oil Co.'s No. 1 Scott, on sand at 1,135 feet; Hyer and others' No. 1 Clay, drilling at 200 feet; Morland Oil Co.'s No. 1 O'Daniel, at 2,035 feet.

Culberson County

Gresham Brothers' No. 1 fee, drilling at 2,809 feet; California Co.'s No. 1 Gresham, fishing at 934 feet; Pure Oil Co.'s No. 1 Quaid, fishing at 35 feet.

Sterling County

Wrightsman Petroleum Co.'s No. 1 Foster, drilling at 1,625 feet; No. 1 Hull, fishing at 3,030 feet; Runnell and others' No. 1 Clark, drilling at 150 feet.

Crane County

Cordona Oil & Potash Co.'s No. 1 Cowden, fishing at 2,545 feet; Penn-Mex Development Co.'s No. 1 Cowden, spudding in; Texas Development Co.'s No. 1 Cowden, drilling at 2,750 feet.

Pecos County

Tom Adams Oil Co.'s No. 1 Gray, spudding in; Dixie Oil Co.'s No. 1 Sherbino, drilling at 600 feet; West Texas Exploration Co.'s No. 1 Macy, 200 feet.

Crockett County

Cook and others' No. 1 University, fishing at 2,130 feet; Crockett Drilling Syndicate's No. 2 Shannon, drilling at 400 feet; Humble Oil & Refining Co.'s No. 2 Powell, 1,035 feet; No. 1 Harris, 400 feet.

New Mexico Field Operations

By Special Correspondent

ARTESIA, N. Mex., Sept. 14.—After flowing 450 bbls in eight hours the Dome Oil Co.'s No. 2, Section 21-18-28, caught fire from an unknown cause and, after destroying the rig and consuming a large amount of storage, was extinguished. In th esame area as the big producers of the Maljamar Oil & Gas Co., Snowden, McSweeney & McNutt and Flynn, Welch & Yates, the Dome well from all indications is the largest producer ever completed in the Artesia Pool. After drilling into the sand at 2,018 feet, this being 33 feet in thickness, the pocket was drilled with the bottom of the hole reported at 2,086 feet. Shot with 140 quarts of glycerin the well responded immediately, flowing over the mast for ten minutes, after which it started flowing by heads at intervals of 30 minutes.

A peculiar condition exists in the immediate vicinity of this well, as in the surrounding producers two pay sands have been encountered, the first of these being topped at approximately at 1,850 feet, this being about 15 feet through. Such a sand has been encountered in the No. 6 well of Snowden, McSweeney & McNutt, which is due west of the big Dome producer, the hole now standing 1,000 feet in fluid from a pay at 1,845-58 feet. This well, together with No. 9 of the Maljamar Oil & Gas Co., are both being drilled to completion.

The Dancigar Oil & Refining Co. is also completing its No. 3 in Section 17-18-28, having 1,500 feet of fluid in the hole from the top pay. Operators are closely watching the Bailey-Cragin No. 1 well on the Randolph Permit in the SW of the NE of Section 35-18-29. Fifty feet of sand from 2,300-50 was shot with 100 quarts and three hours bailing failed to lower the fluid. This well is 7 miles east of the producing area and will probably mean the opening of a new pool in that direction, as from all indications it has no connection with the producers in Section 28-18-28.

The Fletcher Oil Co. reports a good showing from its No. 1 well in Section 5-19-28. This well is to the south of the discovery hole and also encountered a gas sand at 1,850 feet. In the same locality the Mesa Oil Co. which missed the regular 2,000-foot pay is carrying down a No. 1 test, the present depth 2,360 feet. It in the intention of the company to go to 2,600 feet if necessary, although production can reasonably be expected between 2,400 and 2,500 feet.

May Reserve Inside Locations

While rumors have been current that another cut in the price of crude may be expected, most of the producers feel positive that the present price will remain in effect. Should such cut be made, however, it is the intention of operators to drill only the necessary offsets, keeping their inside locations for future operations. One of the big independents has announced that if necessary he will drill out all locations made to date, the holes to be carried down as far as the pay and then capped. The absence of water in this field, the fact that the holes stand up without casing and also it being strictly a glycerin field, makes this a practical plan. A number of operators also intend to turn their activities to wildcatting, as large blocks of acreage and many government permits can be obtained at exceedingly low figures.

In the southeast trend the Snowden-McSweeney wildcat in Section 4-21-30 looks better than at any time since the starting of the hole. Down 3,640 feet, the well is drilling in hard lime and a sand is looked for within the next 200 feet. To the east of this test, Colvert and others in Section 15-21-33, Lea County is still fighting quick sand at 300 feet. The 15½-inch casing is being carried down and, as soon as this sand is shut off better drilling time is expected.

In the northern part of the State active development work is promised by the owner of the Coal Creek Oil Co. in San Juan Field. It is reported the company will let a contract for six new

(Continued on Page 115)

North Louisiana-Arkansas

By M. L. Vaughn

Further decline in heavy Smackover and Arkansas with small increase in North Louisiana. Urania giving promise of becoming real field. Pine Island activity being resumed. Marion County, East Texas, reports 100-bbl. well for Tri-Mount Oil Co. East El Dorado Field has dozen wells drilling.

SHREVEPORT, La., Sept. 14.—The downward trend in heavy oil production in the Smackover Field continues, the decrease for the past week averaging 5,380 bbls. a day. Other districts in Arkansas showed a slight falling off in production, partially offset by an increase of 442 bbls. a day in North Louisiana. Production in North Louisiana averaged 48,632 bbls. and Arkansas 218,125 bbls., a total of 266,757 bbls. a day, distributed as follows:

North Louisiana	
Bellevue	2,985
Caddo, light	8,960
Caddo, heavy	1,985
Cotton Valley	11,360
De Soto and Red River	4,030
Elm Grove	535
Haynesville	13,415
Homer	6,362
Total North Louisiana	48,632
Arkansas	
Smackover, heavy	180,705
Smackover, light	25,475
El Dorado	8,800
Nevada County	1,340
Stephens	1,805
Total Arkansas	218,125
Total both fields	266,757
Decrease	5,388

Prospects of a real oil field in the Urania district, La Salle Parish, have been strengthened by development in Zeigen and others' No. 3 Urania, Section 19-10-1e, which is flowing through 2-inch tubing at the rate of 100 bbls. a day at 1,559 feet. The well is making considerable salt water, but not enough to prevent its making a commercial well when put on the beam. Rowe and Wallace have approximately 2,000 bbls. of oil in their tanks, awaiting shipment, which is expected to begin next week, and when Zeigen and others get their two wells to pumping, the new pool will have a daily production of pipe line oil around 150 bbls. a day.

A resumption of activity in the old Pine Island Field in Caddo Parish is indicated by the leasing of 985 acres to the Ohio Oil Co. in Section 6-21-14, 1-21-15, 2-21-15 and 36-22-15. The land leased lies in the northeastern edge of the Pine Island district and extends up towards the old Hosston Field, the first shallow field developed in Caddo Parish. The lease carries a cash consideration of $25,000 and $75,000 out of the first oil produced, in addition to one-eighth royalty and $5,000 a year rental for three years, the period of the lease. The Ohio recently completed a 60,000,000-foot gas well with a good showing of oil in the 3,600-foot sand in this district, and it is probable they will put on an extensive drilling campaign on the new property.

Interest in East Texas development has again been aroused by the completion of a producing well in Marion County, just across the line from the old Monterey district in Caddo Parish. The well was drilled by the Tri-Mount Oil Co. on the Watson lease in the Gupton survey, and came in with an initial production estimated at 100 bbls. It is on a tract once owned by the Gulf Production Co. and is the second producer in this territory.

Completions

Union County, Arkansas

Operations in the Union County or north area of the Smackover Field during the past week resulted in the completion of 17 wells, of which 6 were gas wells with a combined initial volume of 122,000,000 feet, 4 failures and 7 producing wells having an aggregate initial production of 1,948 bbls.

Arkansas Fuel Oil Co. drilled to 2,882 feet in No. 3 Spahr, Section 35-15-16, without success, and the test was abandoned.

Nick Barbara completed No. 1 Houston, Section 12-16-16, at 2,712 feet, an unusually deep test in the Blossom sand, and the well came in making 25,000,000 feet of gas with a spray of salt water.

Crawford & Sebastian got a 25,000,000-foot gasser at 2,538 feet in No. 8 Graves, Section 3-16-15, with a spray of salt water.

Gulf Refining Co. completed No. 9 J. A. Berry, Section 7-16-15, making 12,000,000 feet of gas and 300 bbls. of salt water at 2,684 feet, and abandoned No. 1 Howard, Section 13-16-16, at 2,780 feet.

Humble Oil & Refining Co.'s No. 4 B. Goodwin, Section 3-16-15, is pumping 75 bbls. at 2,379 feet.

Lion Oil & Refining Co. completed No. C-5 Murphy, Section 8-16-15, making 10,000,000 feet of gas at 2,615 feet, and No. C-7 Murphy, same section, pumping 250 bbls. at 2,471 feet.

Moco Oil Corp. completed No. 2 Flenniken, Section 4-16-15, pumping 150 bbls. at 2,377 feet.

Morgan and others abandoned No. 2 Polk-Ezell, Section 12-17-15, at 2,880 feet.

Pure Oil Co.'s No. 4 Friend, Section 6-16-15, is blowing with air, 1,000 bbls. a day, at 2,388 feet.

Rutledge and others completed No. 2 Carruth, Section 7-16-16, pumping 60 bbls. at 2,323 feet.

Shreveport Oil Corp. completed No. B-2 Murphy, Section 9-16-15, making 10,000,000 feet of dry gas at 2,607 feet.

Standard Oil Co. completed No. 22 M. W. Hardy, Section 10-16-15, pumping 225 bbls. at 2,400 feet, and No. 35, same section, pumping 188 bbls. at 2,382 feet.

Wabler and others abandoned No. 1 Morrison, Section 12-18-14, 3 miles east of production in El Dorado East Field. The well tested salt water with a show of oil at 2,627 feet, and tested dry at 2,700 feet.

Ouachita County

Completions in the Ouachita County area of the Smackover Field last week numbered 16, adding 6,585 bbls. of oil and 70,000,000 feet of gas to the output of this district. Three failures were reported, two in the Graves and one below the Blossom sand.

J. E. Crosbie completed No. 13 Berry, Section 33-15-15, blowing 500 bbls. with air at 2,375 feet.

Gulf Refining Co.'s No. 8 R. Bennett, Section 33-15-15, is making 40,000,000 feet of gas at 2,575 feet.

Humble Oil & Refining Co. completed No. B-4 Arnold, Section 26-15-16, pumping 40 bbls. at 2,055 feet.

Imperial Oil & Gas Prod. Co. junked and abandoned No. 8 McClanahan, Section 6-16-15, at 2,377 feet.

Pat Marr's No. 2 Fee, Section 3-16-15, is flowing 2,000 bbls. at 2,376 feet.

Ohio Oil Co.'s No. 3 Lewis, Section 26-15-15, is pumping 35 bbls. at 2,038 feet.

Roxana Petroleum Corp. completed No. A-4 Bennett, Section 32-15-15, flowing 60 bbls. b. s. at 2,587 feet.

Simms Oil Co.'s No. 5 D. S. Laney, Section 31-15-15, is blowing 500 bbls. with air at 2,619 feet.

Standard Oil Co. completed No. 6 R. Bennett, Section 32-15-15, flowing 2,000 bbls. with gas, 60 per cent salt water, 8 per cent b. s., at 2,420 feet; abandoned No. 5 S. L. Johnson, Section 29-15-15, at 2,465 feet.

Bossier Parish, Bellevue Field

C. W. White abandoned No. 1 Martin, Section 26-15-15, in red shale at 2,895 feet.

G. W. Wetherbee abandoned No. 2 Bierly, Section 24-19-11, at 574 feet.

Caddo Parish

In the Pine Island district, Austin Oil Co. completed No. 23 Hoss, Section 24-21--15, pumping 15 bbls. at 1,078 feet; Dixie Oil Co.'s No. 68 Robertshaw, Section 14-21-15, is pumping 15 bbls. at 1,707 feet; and, Lewis, Oil Corp. completed No. 11 Raines, Section 22-21--15, pumping 20 bbls. at 1,646 feet.

Grant Parish

Grant Parish Petroleum Co. moved rig and abandoned No. 1 Selmer Lumber Co., Section 14-7-1w, at 950 feet.

La Salle Parish

Zeigen and others completed No. 2 Urania, Section 19-10-2e, pumping 20 bbls. at 1,572 feet, offsetting discovery well.

Lincoln Parish

Palmer & Bickley abandoned No. 1 Barrett, Section 13-20-3w, at 2,640 feet after testing dry.

Webster Parish
Cotton Valley District

Ohio Oil Co.'s No. 34 Bodcau, Section 21-21-10, is pumping 100 bbls. at 2,577 feet.

LaFayette County, Arkansas

Humble Oil & Refining Co. abandoned No. 1 Bodcau-Fee, Section 17-16-23, in shale, at 1,460 feet.

Miller County

Clifford Nash abandoned No. 2 Harvey, Section 2-15-16, without testing, at 2,506 feet.

Drilling Operations

Union County, Arkansas

Interest in Union County development is now centered in the East El Dorado Field, where more than a dozen wells are now drilling to the newly discovered third producing sand. Activity in this territory is not expected to attain very large proportions, as the limits of the East pool are clearly defined and it covers a comparatively small area. A number of wildcat tests are in progress on the outskirts of the pool, extending from 5 to 10 miles in different directions.

Among the new wells in the East Field, Braswell and others have derrick up for No. 1 Doss, Section 16-17-14; Clark & Greer are arranging to deepen No. 1 Roseboom, Section 7-17-14; Clement Oil Co. is down 150 feet in No. 4 Moody, Section 18-17-14, and Sam Cook set 10-inch at 180 feet in No. 1 Ezell, same section; Norris and others are rigging up to drill No. 1 Perdue, Section 4-17-14; Russell and others set 10-inch at 40 feet in No. 1 Brown, Section 8-17-14; Jim Stock has derrick up for No. B-2 Ezell, Section 18-17-14, and Wingfield and others are rigging up to drill No. 1 Tuffts, Section 18-17-14.

Amerada Petroleum Corp. tested dry several times between 2,563 and 2,479

News of Mexican Fields

By George Blardone

TAMPICO, Mexico, Sept. 11.—With 14 wells completed in Mexican fields the past week only three can be placed in the production column with new potential production of 1,000 bbls. Of these three, the best producer was in the Topila district, Credito Petrolero's No. 10-A, Lot 43 Paciencia de Auguacate, being rated for 500 bbls. at 2,040 feet, a shallow depth for that sector. La Espuela Oil Co.'s No. 5, Lot 11, Isleta, is good for about 100 bbls. at 2,220 feet. In the south fields, Mexican Eagle Oil Co.'s No. 47, Lot 120 Amatlan, can strip around 400 bbls. at a sub-sea level of 1,657 feet.

In the northern fields the failures follow: International Petroleum Co.'s No. 131, Lot 5 Cacalilao, is a dry hole at 2,500 feet; its No. 219, same lot, is junked at 1,695 feet, and it will skid over, and its No. 227, same, developed a crooked hole at 370 feet, and it, too, will skid over. National Oil Co.'s No. 8 Herradura, is a failure at 2,435 feet. Tampascos Oil Co.'s No. 4 Barragan, is a dry hole at 2,100 feet. In Corcovado, La Corona Petoleum Co.'s No. 13, Lot 6, is a duster at 2,350 feet. International Petroleum Co.'s No. 9, Lot 6, is the same at 2,410 feet, and Transcontinental Petroleum Co.'s No. 14, Lot 6, also finished dry at 2,255 feet. In the Ebano sector, Mexican Petroleum Co.'s No. 37 Chapacao drilled into salt water at 2,485 feet. In the Federal zone at Punta Arena, on the Panuco River, Peraldi et al No. 2, finished a duster at 2,410 feet.

In the south fields, Huasteca Petroleum Co.'s No. 14 Casiano, came in a fluid well at a sub-sea level of 1,887 feet, but the rotary tools jammed the gate and at this writing it is giving some trouble to clear the rotary drill stem and get on a valve to control the fluid flow. When this is done the well will be plugged.

Panuco

Operations in the Panuco Field as the week closed are best reflected as follows: Cia Petroleum Chileno-Mexicana, No. 1, Lot 5 Beuna Vista, cemented 8-inch in grey lime at 1,540 feet, and it is rigging for No. 5 Tampuche. La Corona Petroleum Co.'s No. 82 San Manuel, is in the Tamasopa at 3,255 feet. Consolidated Oil Fields of Mexico No. 2, Lot 6 Camolote, is showing 10 bbls. in the grey lime at 2,127 feet; its No. 4, Lot 6, looks like a failure as it is showing fluid at 2,205 feet, grey lime, and has been shut down for orders. Cia Petroleum Capuchinas, No. 2-A, Lot 12 W. Maguabes, is in grey lime at 1,425 feet, and its No. 9, same, is in a similar formation at 2,020 feet. Credito Petrolero's No. 2 Piedras, is in grey lime at 2,000 feet. Empire Gas & Fuel Co.'s No. 7, Lot 11 W. Maguabes, has spudded, but shut down on account of boiler trouble. East Coast Oil Co.'s No. 42 Lag. Milpa, may be a stripper as it is testing in white lime at 2,370 feet; No. 44 is in grey shale at 1,070 feet; No. 450 Ingenio, is in shells at 1,300 feet, and No. T-4 Tamanto, is in grey shale at 620 feet. Martin Head's No. 2 Piedras, is in brown lime at 2,110 feet. International Petroleum Co.'s 2 Piedras, is in grey lime at 1,620 feet. Mexican Sinclair Petroleum Corp.'s No. 10 Tunanturo, is in brown lime with a 20-bbl. show at 1,950 feet; its No. 7 Zurita, is in grey lime at 1,460 feet; its No. 5-A, Lot 6 Camolote, is running 8-inch in grey lime at 1,625 feet, and it has derricks up for No. 8 Gonzales and for Nos. 4 and

(Continued on Page 102)

feet in No. 6 Calloway, Section 4-16-15, and have a gas blowout at 2,597 feet; rigging up to drill No. 11 Flenniken, Section 6-16-15; plugging back to 2,567 feet and bailing to test 5 feet of sand in No. 10 Lyell, Section 3-16-15, and drilling at 2,120 feet in No. 11 same section. Arkansas Fuel Oil Co. is drilling at 1,425 feet in No. 9 Ferguson and at 750 feet in No. 10, Section 6-16-15.

Bailey & Trimble are drilling at 2,450 feet in No. 5 Lawton, Section 10-16-15; R. A. Briston's No. 1 Parkerson, Section 1-16-16, has the hole full of fluid, 50 per cent salt water, and is arranging to pump at 2,575 feet; J. W. Clark is drilling at 2,435 feet in No. 3 Smith, Section 16-16-15; Crawford & Sebastian are temporarily closed down at 2,647 feet in No. 6 Giller, Section 14-16-15, and Custer & Nash are drilling at 1,150 feet in No. 1 Primm, Section 1-16-16.

Eason and others set 8-inch at 2,653 feet in No. 6 Palmer, Section 9-16-15; Estes and others have derrick up for No. 2 Murphy, Section 15-16-15; W. H. Gilliland set 6inch at 2,255 feet in No. 2 Rice, Section 7-16-16; George & Jones are temporarily closed down at 2,560 feet in No. 5 Murphy, Section 18-16-15; Gulf Refining Co. is drilling No. 15 and No. 17 M. Alphin, Section 2-16-15, and No. 1 McMullen, Section 1-16-16, and set 6-inch at 2,242 feet in No. 41 Werner Sawmill, Section 6-16-16.

Hickman and others set 4½-inch at 2,520 feet in No. 10 Graves, and at 2,525 feet in No. 11, Section 3-16-15; Higgins Oil & Fuel Co. set 6-inch at 2,290 feet in No. 4 McGraw, Section 7-16-16; Hollyfield and others, arranging to deepen No. 10 Giller, Section 11-16-15, and set 6-inch at 2,610 feet in No. 12 Giller, Section 10-16-15.

Humble Oil & Refining Co. tested gas and salt water at 2,536 feet in No. A-4 Flenniken, Section 3-16-15, and are recementing 6-inch casing; Imperial Oil &a Gas Co. set 6-inch at 2,600 feet in No. 8 Murphy, Section 9-16-15, and in same section No. 9 Murphy blew in while bailing, making 45,000,000 feet of gas with a spray of salt water at 2,640 feet, and is rigging up to drill No. 11 and No. 12 McClannahan.

Kinnebrew and others are drilling at 2,460 feet in No. 1 Williams, Section 3-16-15, and Keene & Wolf are drilling out plug at 2,340 feet in No. 4 Murphy, Section 9-16-15; Laurel Oil & Gas Co. recemented 6-inch at 2,630 feet in No. A-8 Murphy, Section 7-16-15, drilling at 2,965 feet in No. A-10 Murphy, same section; arranging to pump No. B-3 Murphy, same section, and drilling at 2,050 feet in No. A-4 Hardy-Murphy, Section 9-16-15.

Livingston and others are arranging to deepen No. 1 Saxon, Section 4-16-16; J. S. Lyell, drilling at 1,450 feet in No. 11 Fee, and at 1,350 feet in No. 13, Section 3-16-15; Magnolia Petroleum Co., drilling plug in 8-inch at 2,470 feet in No. 6 Hatfield, Section 7-16-15, and has 450 feet of oil in 65 feet of broken sand in No. 3 Stout Lumber Co., Section 1-16-17, and is arranging to pump at 2,265 feet.

Mazda Oil Co.'s No. R-4 Lawton, Section 10-16-15, blew in at 2,735 feet making 20,000,000 feet of gas and 5,000 bbls. of salt water at 2,735 feet, and No. R-2 Lawton is drilling at 1,920 feet. Moco Oil Corp. is arranging to set 4½-inch with packer at 2,362 feet in No. 3 Flenniken, Section 5-16-15; Murdock and others are arranging to deepen No. 2 Hays and coring at 2,355 feet in No. 4, Section 4-16-15; Natural Gas & Petroleum Co. set 6-inch at 2,577 feet in No. 4 Ballard, Section 15-16-15, and at 2,525 feet in No. 5 Bilyew, Section 9-16-15.; drilling at 960 feet in No. 1 Holloway, Section 6-16-16, and arranging to pump No. D-4 Murphy, Section 8-16-15.

Ohio Oil Co., rigging up to drill No. 1 Murphy, Section 24-17-15; Parrish and others, drilling No. 3 Ferguson, Section 6-16-15, at 2,450 feet; Penguin Oil Co., drilling No. 4 G. E. Murphy at 2,490 feet, and No. 5 at 2,360 feet; Phillips Petroleum Co., fishing at 2,530 feet in No. 2 Thompson, and at 2,630 feet in No. 4, Section 7-16-15; Pure Oil Co. set 6-inch at 2,403 feet in No. B-3 Bilyew, Section 8-16-15, and coring at 2,560 feet in No. 6 Merriwether, Section 6-16-15.

Raines and others are rigging up to drill No. 1 Dumas, Section 9-17-16, on the northwestern edge of the El Dorado Field; Riggs Drilling Co. set 4½-inch at 2,353 feet in No. 1 Wingfield, Section 5-16-15; Southern Crude Oil Producing Co., drilling at 100 feet in No. 6 Lyell, Section 3-16-15, and at 1,350 feet in No. 8 Graves, same section; Sun Oil Co. has three wells nearing completion on the Hays lease, Section 3-16-15, and The Texas Co. is rigging up to drill No. 9 Alphin, Section 3-16-15, and drilling at 2,570 feet in No. 9 Graves, and at 2,475 feet in No. 11 Section 3-16-15, and coring at 2,272 feet in No. 1 McGraw, Section 12-16-17.

Thurman and others are drilling at 2,405 feet in No. 4 Wingfield, Section 5-16-15; Unity Petroleum Co. has four wells nearing completion on the Roper lease, Section 3-16-15; Vance and others are reaming to 2,040 feet in No. 1 Kane, Section 12-16-16; Wetherbee and others are drilling at 1,650 feet in No. 2 Holloway, Section 6-16-16, and Zoder and others are drilling at 1,350 feet in No. 5 Allen, Section 18-17-14.

Among the tests outside the proven field being watched, Bonderant and others are drilling at 980 feet in No. 1 Garner, Section 8-18-12, 10 miles east of the El Dorado East Field; Doern and others are drilling at 2,675 feet in No. 1 Fletcher, Section 4-19-16, 4 miles west of the South El Dorado Field.

Ouachita County

There is a continued decrease in activity in the north end of the Smackover Field, due to failures and salt water difficulties, and at the close of the week there were only 105 drilling wells, 4 rigs, 16 derricks and 1 new location.

Arkansas Drilling Co. is drilling at 1,550 feet in No. 1 Turnage, Section 34-15-16; Arkansas Fuel Oil Co.'s No. 9 Snyder, Section 34-15-15, blew in at 2,490 feet, making 25,000,000 feet of gas with 8,000 bbls. of salt water; Atlantic Oil Producing Co., arranging to pump No. 5 Berg, and set 12½-inch at 400 feet in No. 6, Section 30-15-15; Bailey & Murray, drilling at 2,100 feet in No. B-5 Rhoten and at 1,950 feet in No. B-7, Section 32-15-15.

Colcord and others No. A-3 Laney, Section 31-15-15, tested 25,000,000 feet of gas at 2,560 feet, drilled deeper and will test 2 feet of sand at 2,570 feet; J. E. Crosbie and others are drilling at 2,350 feet in No. 14, same section; Empire Gas & Fuel Co. has 1,800 feet of oil in the hole and is arranging to pump No. 6 Bradley, Section 30-15-15, at 2,605 feet, with No. 7, same section, rigging up to drill.

Giles and others set 6-inch at 1,825 feet in No. 4 Neeley, Section 26-15-16; Grayson and others are arranging to pump No. 2 Williams, Section 5-16-15; Gulf Refining Co., drilling No. 6 Bennett, Section 32-15-15, at 2,180 feet; No. 11 Goodwin, Section 32-15-15, at 2,535 feet; No. 6 Umsted, Section 32-15-15, at 2,175 feet, and No. A-18 Uumsted, Section 33-15-15, set 4½-inch at 2,565 feet. Houston Oil Co., drilling No. 9 B. T. Laney, Section 31-15-15, at 2,443 feet.

Humble Oil & Refining Co., rigging up to drill No. B-5 Arnold, Section 26-15-16, drilling No. 6 Flannigan, Section 6-16-15, at 1,835 feet; drilling No. 8 Hildebrant, Section 28-15-15, at 700 feet; No. 10 Laney, Section 32-15-15, at 1,460 feet, and arranging to deepen No. 6 Umsted, Section 5-16-15. Imperial Oil & Gas Producing Co. has made a location for No. A-8 McClannahan, Section 6-15-15; Lion Oil & Refining Co., drilling No. 1 Forest City Box Co., Section 25-15-15, at 900 feet; Magnolia Petroleum Co., drilling No. 4 Brown, Section 26-15-17, at 2,285 feet, and has 1,200 feet of oil in the hole in 5 feet of sand at 2,523 feet in No. 8 Goodwin, Section 5-16-15.

Marine Oil Co. is arranging to deepen No. 5 Snyder, Section 34-15-15, from 2,523 feet, and will test No. 10 at 2,562 feet, and is drilling at 3,195 feet in No. 9 Umsted, Section 5-16-15.

Natural Gas & Petroleum Co.'s No. 9 Laney, Section 31-15-15, blew out at 2,702 feet, making 60,000,000 feet of gas, and is flowing wild; Neibert and others, drilling No. 1 Higgins, Section 4-13-17, at 650 feet; Ohio Oil Co.'s No. 4 Lewis, Section 26-15-15, has 1,700 feet of oil in the hole in 83 feet of broken sand, and is running sand pump at 2,048 feet; No. 5 Lewis, Section 26-15-15, has 300 feet of oil in the hole in 29 feet of sand and arranging to pump at 2,089 feet. Phillips Petroleum Co.'s No. 9 Harris, Section 34-15-15, is drilling at 1,175 feet, and 10 wells are nearing completion on the Joyce lease in Section 33-15-15, and 3 on the Laney in Section 31-15-15.

Pure Oil Co. is drilling at 1,760 feet in No. 10 Brister, Section 28-15-15, and at 1,170 feet in No. 5-A Brister, same section; Sam Richardson, drilling at 1,600 feet in No. 2 Rhoten, Section 32-15-15; Simms Oil Co., drilling at 2,390 feet in No. 8 Hirsch and at 2,583 feet in No. 10 Laney, Section 31-15-15; set 4½-inch at 2,585 feet in No. 5 Murphy, Section 29-15-15; arranging to pump No. 5, No. 7 and No. 8 Reynolds, Section 32-15-15, and drilling No. 1 Simms-Berg at 2,000 feet and No. 2 at 2,050 feet, same section.

Sinclair Oil & Gas Co. is drilling at 1,200 feet in No. 16 Berry, Section 33-15-15; Southern Crude Oil Producing Co., drilling at 2,550 feet in No. 16 Berry, Section 34-15-15; Standard Oil Co. set 10-inch in No. 7 and No. 8 Bennett, Section 32-15-15; cemented back to 2,534 feet to make a gas well in No. 30 M. W. Hardy, Section 4-16-15; drilling No. 5 S. L. Johnson, Section 29-15-15, at 2,585 feet; set 6-inch at 2,640 feet in No. 6 Powell, Section 34-15-15, and 4½-inch at 2,585 feet in No. 2 Reynolds, Section 27-15-15, and has five rigs running on the Umsted lease, Section 32-15-15.

Sure Oil Corp., drilling at 1,395 feet in No. 3 Snyder, Section 34-15-15; The Texas Co. has 1,700 feet of fluid in 4 feet of sand in No. 15 Berry, Section 33-15-15, and is arranging to pump at 2,403 feet; bailing salt water at 2,528 feet in No. 9 Johnson, Section 34-15-15; drilling at 1,920 feet in No. 5 Neeley, Section 27-15-16, and rigging up to drill No. 1 Watt, same section. Unity Petroleum, Co., drilling No. 2 Henry-Murphy, Section 2-16-15, at 1,500 feet; No. 9 Umsted, Section 33-15-15, at 2,475 feet, and Wingfield and others have set 6-inch casing at 2,350 feet in No. 4 Umsted, Section 4-16-15.

In the Stephens Field, the Buffalo Oil Co. is arranging to bail 11 feet of broken sand at 2,220 feet in No. 1 Davis, Section 22-15-19, and the Humble Oil & Refining Co. is drilling at 1,220 feet in No. 1 Warren. Section 35-13-19.

Bienville Parish

J. E. Smitherman is drilling at 2,500 feet in No. 1 Hunt-Hodge Lumber Co.,

(Continued on Page 106)

TESTING THE 3,000-FOOT HORIZON IN THE SOUTHERN ARKANSAS AREA

EL DORADO, Ark., Sept. 12.—With over a dozen wells drilling below the Blossom sand horizon and three below 3,000 feet, all bent on testing out the possibilities of Woodbine sand in the Smackover Field, and with Blossom sand failures scattered about the field the Smackover area below the Graves sand looks worse as week follows week.

Below Blossom Sand Horizon

In this week's roundup of drilling operations in the El Dorado scouting district, the following wells are below 2,700 feet, one of them being at 3,219 feet:

The Marine Oil Co. was coring at 3,195 feet in its No. 9 Umstead, in Section 5-16-15; Lion Oil Refining Co. drilling at 2,963 feet in No. A-10 Murphy, Section 7-16-15; Amerada Petroleum Co., drill stem stuck in the hole at 2,730 feet in No. 5 Giller, Section 15-16-15; Lion Oil Refining Co., drilling at 2,754 feet in No. B-2 Murphy, Section 18-16-15; Weatherbee and others' No. 3-B McGraw, Section 7-16-16, drill stem stuck in the hole, total depth 2,700 feet; Henderson and others' No. 2 Smith, Section 18-16-15, drilling at 3,005 feet; Gulf Refining Co. abandoned No. 1 Howard, Section 13-16-15, at 2,780 feet, with the casing in the hole; Smitherman & McDonald drilled to 2,886 feet and plugged back to Nacatoch sand in No. 1 Dumas, Section 23-16-16; Walber and others' pulled casing and abandoned No. 1 Morrison, Section 12-18-14; El Dorado Union Oil Co.'s No. 1 Eagle Lumber Co., Section 7-12-15, abandoned at 2,707 feet after it had tested salt water; Genter and others drilling at 2,700 feet in No. 1 Freeman Smith Lumber Co., Section 24-15-15; White and others abandoned No. 1 Martin, Section 26-15-15 at 2,895 feet, with no showing; Houston Oil Co. coring at 2,811 feet in No. 5 Reynolds, Section 27-15-15. Standard Oil Co. of Louisiana's No. B-5 Umstead, Section 32-15-15, drilling at 2,836 feet; Crosbie and others coring at 3,219 feet in No. 12 Berry, Section 33-15-15; Standard Oil Co.'s No. 9 Griffin, Section 33-15-15 coring at 2,782 feet; Arkansas Fuel Co.'s No. 3 Spahr, Section 33-15-16, abandoned at 2,882 feet and the casing pulled; Duho Oil Co.'s No. A-1 McKinzie, Section 36-15-16, drill stem stuck in the hole, total depth 3,140 feet; The Texas Co.'s No. 1 Saline Lumber Co., Section 11-16-10 Bradley County, reaming to the bottom, 3,039 feet.

At Interesting Depths

The Standard Oil Co. of Louisiana's No. 2 Reynolds, SW NW SW Section 27-15-15, set 4½-inch casing at 2,586 feet.

The Humble Oil & Refining Co.'s No. 7 Hildebrand, SW SE SW Section 28-15-15, got sand at 2,429 feet, and was awaiting orders.

The Simms Oil Co.'s No. 5 Murphy, SW SE SE Section 29-15-15, set 4½-inch casing at 2,585 feet.

The Natural Gas & Petroleum Co.'s No. 9 Laney, CEL NW SE Section 31-15-15, blew in with 50,000,000 feet of gas a day and a show of salt water from Blossom sand at 2,702 feet.

The Gulf Production Co.'s No. 8 Bennett, SE SW SW Section 33-15-15, is a 40,000,000-foot gasser from Lawton sand at 2,551-78 feet.

The Standard Oil Co. of Louisiana's No. 6 Powell, NW NE NW Section 34-15-15, was setting 6-inch casing at 2,639 feet.

Crawford & Sebastian's No. 8 Graves, NE SW NE Section 3-16-15, got sand at 2,517-38 feet and a 25,000,000-foot gas production, with a showing of salt water.

Henderson and others' No. 2 Smith, NE NW SW Section 18-16-15, was drilling at 3,004 feet.

The Humble Oil & Refining Co.'s No. 7 Hildebrand, SW cor. SE SW Section 28-15-15, set 6⅝-inch casing at 2,431 feet.

Colcord's No. 3-A Laney, SE SW Section 31-15-15, set short string of 5⅞-inch casing at 2,570 feet; Kinnebrew and others' No. 1 Williams, SW NE NE Section 3-16-15, set 4½-inch casing at 2,490 feet.

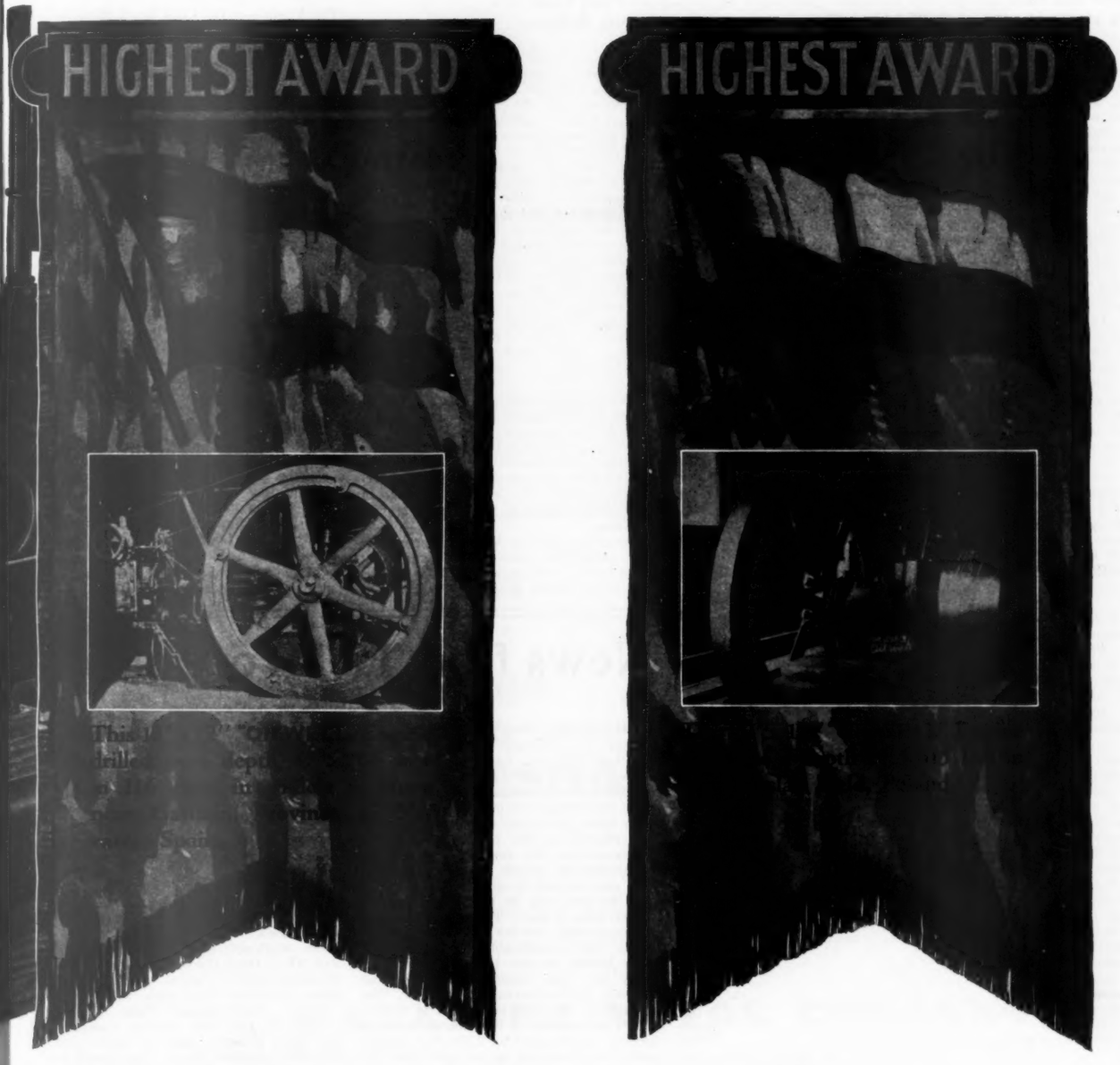
Unity Petroleum Co.'s No. 12 Roper, SE NE SW Section 3-16-15, set 6-inch casing at 2,553 feet; Amerada Petroleum Co.'s No. 6 Calloway, NE NW SE Section 4-16-15, blew in while coring, estimated 20,000,000 feet of dry gas, trying to shut off.

Hollyfield and others' No. 12 Giller, SW NE SE Section 10-16-15, tested 350 feet of salt water with a show of oil and gas in sand at 2,609-14 feet.

The production at the week end was 126,000 bbls. from the Graves sand, 12,300 bbls. from the Lawton sand and 41,000 bbls. from the Nacatoch sand. Total heavy oil production 179,200 bbls.

"OILWELL" ESTD 1862 TRADE MARK REGISTERED

"OILWELL" Engines

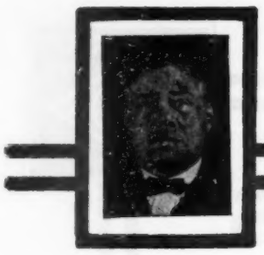


UPPLY CO.

QUIPMENT

BRANCH STORES IN ALL OIL FIELDS

"OILWELL" ESTD 1862 TRADE MARK REGISTERED



Gulf Coast Oil Operations

By P. L. McGreal

Rio Bravo Oil Co. gets well at Pierce Junction which makes 5,000 bbls. It is located 1 mile west of original production and is important completion. Vacuum and Gulf Companies complete producer in Lockport Pool, Louisiana, which starts at rate of 2,500 bbls. Major companies curtailing drilling.

HOUSTON, Tex., Sept. 14. — The Lockport district in Calcasieu Parish, near Lake Charles, La., and the Pierce Junction district, 8 miles south of Houston, came to the front during the week. Both are what might be classed as semi-pools and in both pools the new wells are extensions from old producers.

Early in the week the Vacuum-Gulf companies completed joint No. 3 Miller, in the Lockhart district, at 4,402 feet and it started flowing 2,500 bbls. initial output, 26.1 gravity. The first big well there was Miller No. 1, completed just one year ago at 3,870 feet, flowing 3,000 bbls. initial and gradually increasing to as high as 5,000 bbls. It is still heading 125 bbls. daily, 23.5 gravity. It has produced approximately 200,000 bbls. in one year. During the week the joint interests abandoned No. 1 Phoenix at 4,505 feet. Their No. 1 Freberg-Wolf is being rigged to pump at 2,460 feet.

The Lockport district is in a marsh west of Lake Charles and it is necessary to build elevated walks to the rigs. The acreage in a big block is held and operated jointly by the Vacuum Oil Co. and the Gulf Refining Co. of Louisiana, with the exception of a block by the Marland Oil Co. on which it is now drilling No. 1 Phoenix. The new well is about 2,000 feet south and west from the original producer. The joint interests have seven wells now drilling.

Late in the week the Rio Bravo Oil Co. completed No. 1 Settegast on the west and north sides of the Pierce Junction Dome, Harris County, at 3,875 feet. It came in flowing 2,500 bbls. and Saturday had increased to 5,000 bbls. The gas pressure is unusually strong, with no water. The Humble Pipe Line Co. is connecting to the tanks and will run the oil. It is now flowing into earthen reservoirs. The location is about 1 mile west across the dome from the original production there, which was on the east side of the salt mass. It is the first well of consequence to be completed there in more than a year and its location on the west side makes it important. Previous tests on that side were failures.

Added to these is the Gulf Production Co.'s No. 3 Antonio, on the south side of the South Liberty Pool, completed at 3,450 feet with an initial flow of 2,000 bbls. The usual complement of small wells were furnished by the other pools.

Less Wells Completed

The following gives the results for the week in brief form:

District—	Comp.	Prod.	Dry	S. W.	Big.
Big Creek	1	0	1	0	0
Goose Creek	2	85	0	0	1
Hull	2	175	0	0	1
Lockport	2	2,500	1	0	0
Pierce Junction	1	2,500	0	0	0
Spindletop	2	190	0	0	0
Saratoga	2	0	1	1	0
South Liberty	1	2,000	0	0	0
Vinton	2	850	0	0	0
Miscellaneous	2	0	2	0	0
Total for week	17	8,300	5	1	2
Last week	26	13,750	7	3	5

In Other Pools

In the Goose Creek Pool, the Humble Oil & Refining Co.'s No. 63 Smith is making 85 bbls. at 2,510 feet. The same company's No. 28 on Galliard Peninsula is blowing dry gas at 4,210 feet and the Sun Oil Co.'s No. 17 B. Smith is bailing at 2,500 feet.

In the Hull Pool, the Higgins Oil & Fuel Co.'s No. 4 Merchant is pumping 150 bbls. at 2,830 feet. The Gulf Production Co.'s No. 10 Baldwin is pumping 25 bbls. at 3,150 feet and its No. 12 Phoenix, a work over, is bailing at 2,440 feet. The Mecom Oil Co.'s No. 4 Taylor, which quit flowing, was worked over and restored to production, flowing 750 bbls. It will be remembered it came in 10 days ago flowing 5,000 bbls. at 4,025 feet and flowed for a week when it "sanded."

The Vacuum Oil Co. abandoned No. 1 Teel on the east side of the Saratoga Pool in cap rock at 3,220 feet. The Fountain Oil Co. got salt water in No. 3 Ogden at 2,000 feet.

The Gulf Production Co.'s No. 215 Gladys, at Spindletop, is heading 150 bbls. at 875 feet and Hamm & Co.'s No. 1 Gladys is a 40-bbl. well at 710 feet.

The Union Sulphur Co. quit No. 32 Davis at Big Creek, Fort Bend County, a sulphur test, at 930 feet.

In the Vinton Pool, the Edgerly Petroleum Co.'s No. 7 Vincent is flowing 800 bbls. at 3,165 feet and Marrs McLean's No. 4 Gray, a work over, is making 50 bbls. at 1,795 feet.

Outside of the defined pools, Moore and others quit No. 1 Bailey, 6 miles west of Angleton, Brazoria County, in a fresh water sand at 1,670 feet. The Gulf Production Co. abandoned No. 4 Davis at Long Point Dome, in Fort Bend County, at 1,600 feet. No. 5 is rigging.

Estimated Gross Production

The estimated daily average gross production in the Coastal pools for the week ending Saturday is placed at 102,145 bbls. The South Texas pools are credited with 89,320 bbls. of the total, a decline of 3,588 bbls., and the South Louisiana pools with 12,825 bbls., an increase of 1,298 bbls. compared with last week.

The estimate for each district is as follows:

District—	Gross Bbls.
Batson	1,485
Blue Ridge	600
Barber Hill	95
Big Creek	940
Dayton	50
Damon Mound	1,145
Edgerly, La.	570
Goose Creek	9,270
Humble	4,315
Hull	21,800
High Island	475
Jennings, La.	805
Lockport, La.	2,600
Markham	75
Orange	15,865
*Pierce Junction	460
Spindletop	1,060
Saratoga	1,585
Sour Lake	4,320
South Liberty	14,480
Vinton, La.	8,770
West Columbia	11,200
Welsh-Anse La Bute, La.	80
Miscellaneous	180
Total	102,145

*Late completion at Pierce Junction not included in this week's daily average.

Southwest Fields

The estimated gross production of the Southwest fields for the seven-day period is placed at 45,440 bbls. compared with 45,310 bbls. last week. The estimate for each field is as follows:

Field—	Gross Bbls.
Luling	22,100
Laredo	4,010
Somerset	2,415
Callihan	290
Rockdale-Minerva	850
Jim Hogg County	3,675
Lockhart	12,100
Total	45,440
Grand total for week	147,585
Grand total last week	148,945
Net decrease	1,360

Drilling in the Pools

Major companies with pipe line affiliations have apparently adopted a new policy with reference to buying crude from producers. By curtailing drilling they aim to decrease production and thus prevent an increasing accumulation of surplus stocks in steel and earthen tanks. Gross stocks of Coastal crudes approximate 15,000,000 bbls. and they have been increasing since early last Spring. However, it is believed that with the advent of cooler weather in the North will come an increased demand for Coastal crude for zero cold test lubricating oils and a consequent decline in the surplus accumulation at tank farms. Meantime drilling has been cut to the bone in the pools by the major companies. Very little wildcatting is being done except in the Coastal region of Louisiana, which is getting a play. As has been remarked in previous reviews, practically all the acreage around prospective domes in Coastal Texas is held under lease or in fee by the big corporations. Such is not the case in Louisiana. However, the large companies are gradually increasing their leasing activities around prospective territory in South Louisiana, especially in Calcasieu, Cameron and St. Martin Parishes.

Operations in the South Liberty Pool have dwindled down to three drilling wells, one of which is an old salt water well being drilled deeper. The Peer Oil Co. is drilling No. 1 Hamilton on the extreme south end. The Sinclair Oil & Gas Co.'s No. 3 Conduit is around 3,370 feet and the Associated Oil Co.'s No. 5 Deussen fee is about 3,410 feet. The Gulf Production Co. is rigging No. 12-A Deussen and No. 4 Antonio.

In the Hull Pool, the Gulf Production Co.'s No. 56 Phoenix is drilling at 3,065 feet, with a derrick standing for No. 57. No. 58 Phoenix is around 700 feet and No. 59 is a location. No. 16 Scarborough is drilling at 1,545 feet. The Republic Production Co.-Houston Oil Co.'s joint No. 20 Dolbear is working over. No. 117 is fishing at 3,800 feet. No. 86 sanded at 2,260 feet. The Red Cantor Oil Co. is working over No. 1 Smith, as is the Higgins Oil & Fuel Co.'s No. 3 Taylor. The Yount-Lee Oil Co.'s No. 5 Merchant is working over. The Humble Oil & Refining Co.'s No. 9 Guedry is drilling around 3,224 feet. The Mecom Oil Co. is sidetracking No. 6 Taylor at 4,050 feet. The Peer Oil Co.'s No. 8 Harrison is drilling at 2,910 feet. The Texas-Vacuum Oil Co.'s joint No. 6 Hannah is drilling around 2,415 feet.

In the Orange Pool, the Humble Oil & Refining Co.'s No. 19-A Chesson is bailing at 4,600 feet. The Sun Oil Co.'s No. 1 Johnson quit flowing. The American National Oil Co.'s No. 1 Winifree, northeast of production, is being deepened from 3,100 feet and the Sinclair Oil & Gas Co.'s No. 1 Turner, south of production, is doing the same around 3,415 feet. In Cow Bayou, on State Land, the Rycade Petroleum Corp.'s No. 2-B is around 3,735 feet and No. 2-C is shut down at 4,595 feet, while the rig is being repaired. The formation is shale and sand. The Orange Production Co. is rigging No. 1 Gum Island, 5 miles west of the town of Orange. A test was drilled to 3,000 feet there about 18 months ago and abandoned.

Harris County Pools

In the Humble Pool, the Southern Petroleum Co. worked over No. 15 Landslide and is putting it on the jack to pump. The Sun Oil Co. is drilling No. 29 Duman. Long and others' No. 1 Riverside is drilling.

In the Goose Creek Pool, the Southern

(Continued on Page 107)

News from Fields of Canada

By Victor Lauriston

CHATHAM, Ont., Sept. 12.—In the Sweetgrass district, southern Alberta, the Imperial Oil Ltd.'s No. 2 Dead Horse Coulee, LSD 5, Section 32-1-11w4, at 2,358 feet encountered a sand with some indications of oil, and cores have been taken for closer examination. Official reports on the results of this examination are not yet available; but it is unofficially stated the oil formation was encountered in the Sunburst sand, and the well may be good for from 100 to 300 bbls. a day. The oil encountered is apparently similar to the Sunburst crude, and considerable quantities have been bailed, though latterly some difficulty has been reported in bailing as a result of the increasing gas flow. The location is about 30 miles east of Coutts and 1 mile north of the Rogers-Imperial gasser, the oil sand at 2,358 feet apparently corresponding to the gas sand encountered in the Rogers-Imperial at around 2,500 feet. When the drilling in No. 2 Dead Horse Coulee reached this horizon, the 8-inch casing was run and cemented and the well then drilled to the top of the oil sand, after which a coring bit was used and cores taken. It is possible the sand at this horizon may be shot; a production test will be made very soon. The test may be carried down 125 feet or thereabouts to the horizon of the Ellis sand.

The Canadian Oil & Refining Co. (Rogers-Imperial), Section 29-1-11w4, at 2,810 feet is in the Madison lime. Drilling operations are at present suspended, and it is questionable if further drilling will be done, as the test is now in a 4½-inch hole. It is expected Imperial Oil, Ltd., will utilize the gas from this well in further drilling operations in the vicinity. The gas flow has been brought completely under control and is shut in with a special gate valve. A line has already been laid from the Roger-Imperial to No. 2 Dead Horse Coulee.

Imperial Oil, Ltd., is rigging up for a test at Erickson Coulee, Section 8-1-11w4, and water wells have been put down. This test will likely spud in immediately the No. 2 Dead Horse Coulee is completed. A heavy rotary outfit is being used. The location is about 6 miles southwest of the Rogers-Imperial and No. 2 Dead Horse Coulee, and about 25 miles east of Coutts, being on a different structure from these wells.

Fort Norman Field

Imperial Oil, Ltd., drilling operations are going steadily ahead in other parts of the Canadian West. The latest reports from Fort Norman, dated August 1, show that, at that date, the No. 2 Discovery well, drilling close to the Discovery well, some 53 miles below Fort Norman, had reached a depth of 1,460 feet and was drilling in the Beavertail limestone. Oil had been already encountered in the upper horizon at a little below 900 feet and some difficulty was experienced in shutting off the flow of oil. The hole was in good condition, and drilling will be carried on till the last possible moment before the close of navigation. It was then expected the crews would leave the location about the last week in August, so that further and final news for the season may be expected about the middle of September.

(Continued on Page 104)

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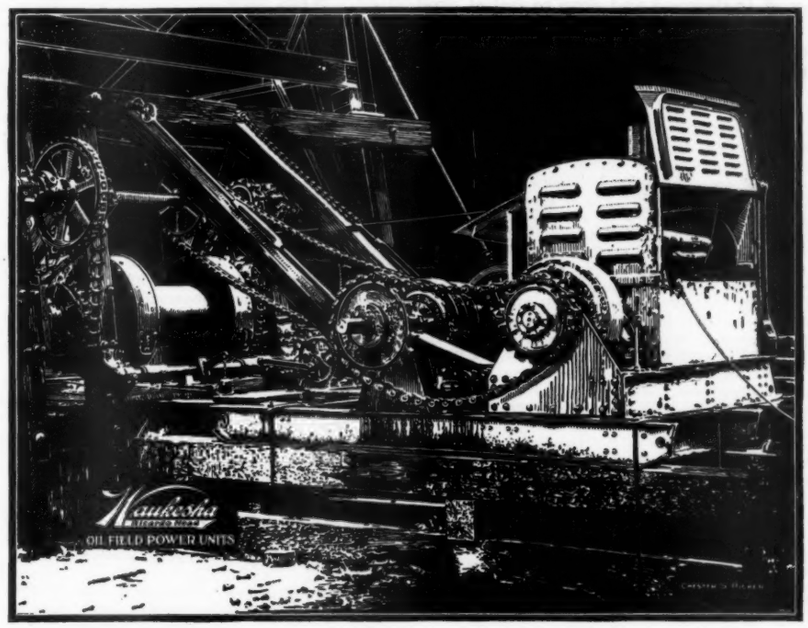

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California Field Operations

By L. P. Stockman

Decrease of drilling at Inglewood and drop in initial production. Wells now coming in around 1,000 bbls. Standard has most of undeveloped acreage left and will operate conservatively. Petroleum Securities gets 1,269-bbl. well. Obispo Co. hopes to restore No. 6 Maricopa Flats soon.

LOS ANGELES, Cal., Sept. 12.—Decreased drilling at Inglewood, due to the fact that most of the productive area has been drilled up, is resulting in a smaller number of completions each week and since the cream of the field has already been developed, the initial production from new wells is showing a corresponding drop. New producers are now coming in around 1,000 bbls. each in contrast to the completions of 30 days ago, which averaged between 2,000 and 3,000 bbls. each and ran as high as 5,000 bbls. in a few instances. The Standard is the only concern with any great amount of undeveloped acreage, and although the Associated, Shell and Petroleum Securities still have a few potential producers, their properties are practically all drilled up and the operations of these companies will not have any vital effect on future production. The Standard is progressing along conservative lines, as its present drilling consists of inside locations which are not susceptible to as great drainage as heretofore. For this reason the company probably will continue to maintain its drilling program as at present instead of increasing the number of strings in operation.

This week the Standard finished two new producers on Vickers' lease No. 1 and added another new well on Los Angeles Investment Lease No. 1. The latter was well No. 29, drilled to 2,631 feet and finished with an 8¼-inch oil string carrying 1,055 feet of 90-mesh screen. The initial output was 976 bbls., the oil testing 19.1 degrees and showing a cut of 1 per cent. The next producer on this lease will be No. 30, now drilling ahead in an oil sand at 2,546 feet. Nos. 31 and 32 have just been drilled out and are going ahead at 1,500 feet. No. 5 on Los Angeles Investment Lease No. 2 was drilled to 2,047 feet and finished with an 8¼-inch oil string but so far the company has been unsuccessful in securing production.

No. 6 on this lease, which is drilling ahead in a brown shale at 2,767 feet, will be obliged to go deep for production. The company's acquisitions on Vickers' Lease No. 1 were Nos. 17 and 18, the former flowing 810 bbls. of 17.1 gravity oil cutting 3 per cent and the latter pumping 371 bbls. of 16.8 gravity oil cutting around 25 per cent. No. 17 was drilled to 2,677 feet and finished with an 8⅝-inch oil string carryng 1,006 feet of 80-mesh screen. No. 18 was completed at 2,664 feet and although it has been passed for production the output indicates further cement work will be necessary. Since the water content is probably due to mechanical trouble and not the result of bottom water, a good well can be expected when finally finished. The company is also experiencing some little water trouble with No. 5 on Vickers lease No. 2, which was put on the beam at 2,753 feet. It is pumping around 100 bbls. of oil and 25 bbls. of water daily on an exhauston test. Another cement job will probably eliminate the water handicap and add 50 bbls. of oil to the well's production.

The Petroleum Securities brought in No. 14 Cone from 2,560 feet after finishing the hole with an 8¼-inch oil string carrying 1,263 feet of shop perforated. The initial tank gauge showed 1,269 bbls. of 21.2 gravity oil. This will probably be the company's last big well in this area under present conditions, as but two incompleted drillers remain on the company's list, No. 5 Lloyd at 2,101 feet and No. 6 Lloyd at 3,155 feet. The Shell's No. 11 Rindge, put on the beam several days ago at 2,808 feet, looks like a water well more than an oil producer. It is at present pumping approximately 350 bbls. of low gravity oil and a similar amount of water. The well has been pumping to sump for some little time in the hope it would clean up, but it begins to look as though the company will be obliged to re-enter the hole. No. 13 Rindge is drilling ahead at 2,800 feet but is not yet deep enough for production. No. 20 Vickers of the Associated, finished last week, developed sand trouble during the past few days and the company is experiencing considerable difficulty keeping the well on production. It looks as though a cleanout job will be necessary before turning it over to the production department. No. 19 Vickers at 2,250 feet and No. 21 at 1,526 feet, complete the Associated's present drilling program, although foundation is in for No. 15 and a rig standing for No. 27.

Oscar Howard has discontinued drilling on No. 1 Dominguez after carrying it down to 4,900 feet and will make a production test at this depth after landing a string of 5⅝-inch. The formation for the last 100 feet was a gray shale with a few fairly good streaks and lenses of oil sand. It is quite doubtful whether commercial production will be secured but the showings, although small, justify a test. The General Petroleum has reached a depth of 4,500 feet in the Brown-Shasta's No. 2 Brown but the outlook is rather discouraging. No. 12 Baldwin of the Pacific, a recent completion, is still cutting about 50 per cent water and conditions seem to indicate this is the edge of the structure at this point. If this deduction is correct, the cut is due to edgewater conditions and further development work will be rather unsatisfactory. The company is apparently also of this opinion, as drilling has been stopped on second line wells further away from the center of the field and no further work will be done on them pending field developments.

Rosecrans

The Fullerton Oil Co. sprang quite a surprise at Rosecrans by bringing in its No. 1 Athens flowing 721 bbls. of 31.8 gravity oil cutting 1 per cent. This hole did not look any too encouraging previous to completion but, upon drilling out the cement at 4,245 feet and drilling to 4,330 feet, a nice sand was encountered. The well was about 350 feet further north on the structure than the nearest producer at that time and this, also, looked rather discouraging. The outcome, while surprising, is quite encouraging to operators in the immediate vicinity. The Union's No. 7 Howard Park was one of the most interesting completions in this area for several months as the company was obliged to go to 6,029 feet to get production. The output, however, is rather unsatisfactory as the oil is cutting around 30 per cent emulsion. The outcome of the test, which will consume several days, will be watched with interest because several new holes will be drilled if the production cleans up. The hole is in the western side of the field and for this reason it is quite possible the emulsion is due to edgewater conditions. If this is the case, further development work on this part of the lease, as well as the northern part of the Trust property, will be abandoned. The Union is still handicapped with numerous fishing jobs in this area but one or two holes look good for production within two or three weeks.

George F. Getty put No. 6 Athens on the beam at 4,734 feet and it is pumping 82 bbls. of 30.8 gravity oil daily. No. 7 Athens was also given a test and is good for 139 bbls. of 32.1 gravity oil from 5,297 feet. The Golden State Refining Co.'s No. 1 Athens, a recent completion, went off production several days ago while doing 300 bbls. a day and the company will be obliged to clean out the hole before returning it to production. No. 41 Athens of the Marine Oil Corp. looks rather promising at 4,491 feet and an early test is anticipated. McBride & Bremner have spent considerable time and effort in attempting to finish No. 1 Athens but it has so far failed to respond in the slightest degree. The well shows plenty of oil and gas but the crew seems unable to get it going. No. 2 Colby of the California Petroleum has just been returned to production after being deepened to 4,614 feet. It started off flowing 2,000 bbls. of 32.4 gravity oil cutting 30 per cent water and sand but has since cleaned up and settled to 1,700 bbls., the present cut being around 4 per cent. The company's next completions should be No. 2 Kreitz, finished at 4,355 feet, and No. 3 on the same lease at 4,337 feet. Both should be on production within 10 days.

Other Operations

The Elbe Oil Co. finished drilling No. 5 Athens at 4,825 feet and made a test with the 8¼-inch set at 4,610 feet. The output during the first six hours indicated a 300-bbl. producer might be expected. To protect the open hole, the company has decided to run in a 6¼-inch liner and officially complete it some time during the next week. The Burnham Exploration Co. is filing an abandonment notice on No. 2 Wagner carried down to 4,134 feet. The hole did not even show a color and, in view of the rather unfavorable circumstances, the abandonment is not surprising. The Barnsdall Oil Co. is deepening No. 1 Rosecrans to the Wanka zone and the bit is now going ahead at 4,400 feet in a hard sand. No. 4 Rosecrans, deepened to 4,857 feet, was not successful in producing from this depth and an attempt will be made to secure oil from the Maxwell zone. The casing has accordingly been perforated between 4,194 feet and 4,535 feet. The company's other three drillers in this area are No. 6 Rosecrans at 4,520 feet, No. 4 O'Dea at 4,215 feet and No. 6 on the same lease at 4,100 feet.

E. J. Miley's No. 6 Athens, the deepest hole in the State, is rotating in a sandy shale which carries some oil at 7,474 feet. It is believed Miley will experience considerable difficulty in securing production from this depth and it will probably be several weeks before anything definite will be ascertained. The Pan American, notwithstanding the abandonment of the Burnham Exploration Co.'s No. 2 Wagner and the rather poor showings in No. 1 Bilhorn of the Chanslor-Canfield Oil Co. at 5,833 feet, is still drilling ahead in No. 2 Anderson at 5,520 feet. The Superior Oil Co. finished drilling No. 5 Maxwell at 4,920 feet and will run in a string of 6¼-inch within a few days. The McKeon Drilling Co. finshed the Tidal's No. 2 Athens and presented the company with a 485-bbl. well, the oil testing 36.4 degrees and showing a cut of 3 per cent. The hole was carried down to 4,725 feet and finished with a 6¼-inch liner carying 118 feet of shop perforated.

Dominguez

The Shell Co. finished an unusually good well at Dominguez during the early part of the week when No. 29 Reyes was given a test from 4,198 feet after being finished with a 6¼-inch oil string carrying 389 feet of 60-mesh screen. This well, which is in close proximity to the Associated's De Francis lease, upon which some of the largest wells in the field were finished, is rated at 1,760 bbls., the oil testing 30.7 degrees and showing a cut of 2 per cent. The company's next completion in this area will be No. 27-A Reyes, now going ahead at 3,738 feet. This hole replaces No. 27 Reyes, lost several months ago as the result of a disastrous gas blowout of 13 days' duration which buried the derrick and equipment in the huge crater formed. The company's No. 30 Reyes at 3,455 feet has about 300 feet to go and looks good for production before the close of the present month. No. 31 Reyes is being rigged up and an early spud is anticipated.

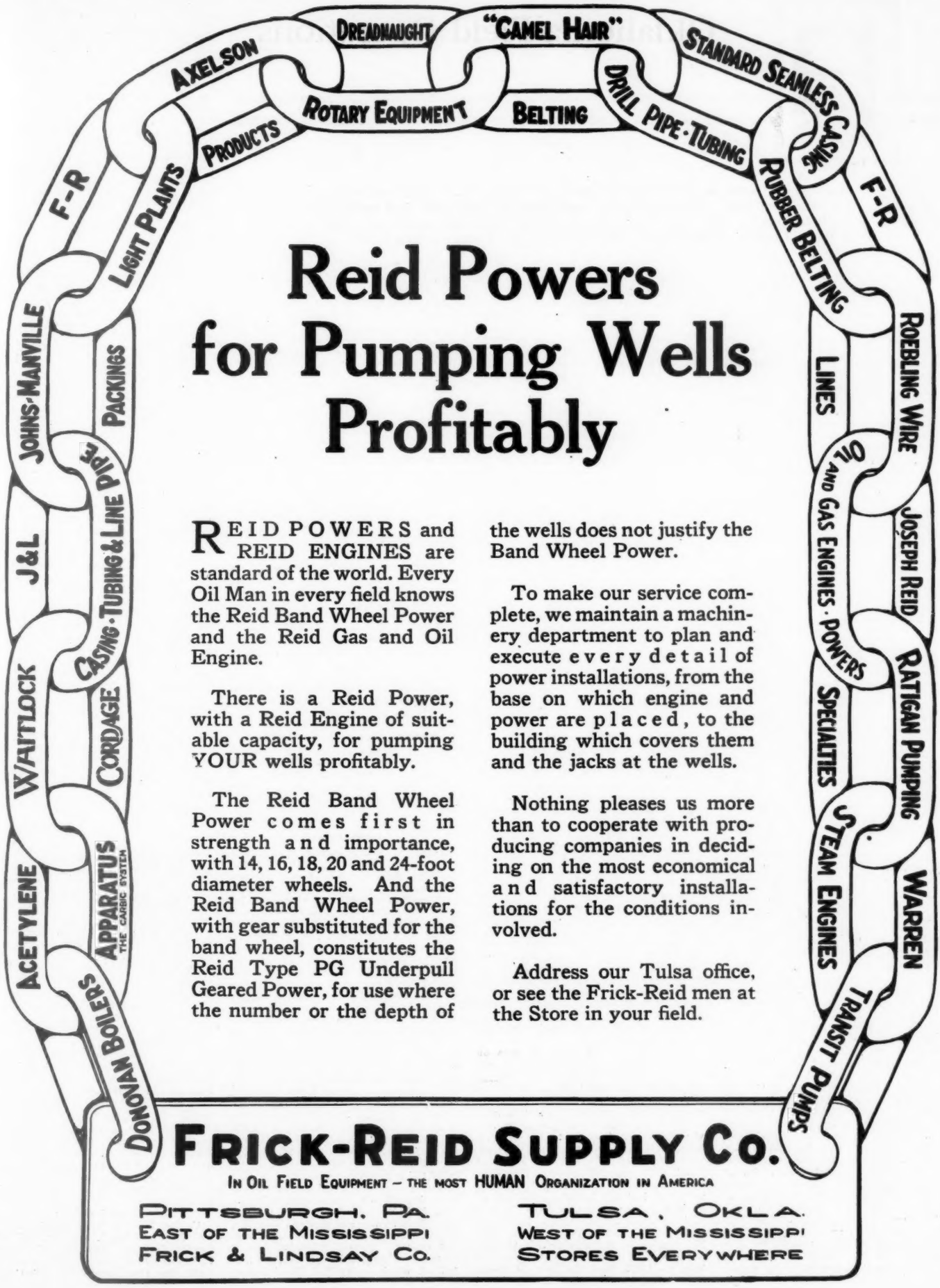
The Union's lone driller in this area is No. 10 Callender, being pushed ahead in a sandy shale at 3,220 feet Two new

(Continued on Page 98)

TANKER SHIPMENTS FROM LOS ANGELES TO ATLANTIC AND GULF COAST PORTS

Following is a list of tankers, date departed, destination, kind of cargo and amount in barrels:

Geo. W. Barnes, August 31, Baltimore, refined	78,615
Francis E. Powell, August 31, Philadelphia, refined	83,142
Byron D. Benson, September 6, New York, crude	80,853
Coastwise	
Mojave, August 31, Everett, fuel	72,603
La Purisima, August 31, San Diego, refined	32,948
Cathwood, September 1, Oleum, crude	75,272
Warwick, September 1, Seattle, refined	41,001
La Placentia, September 1, Oleum, crude	73,689
J. A. Moffett, September 2, Richmond, crude	64,711
K. R. Kingsbury, September 2, Richmond, crude	83,980
La Purisima, September 2, Seattle, refined	43,727
D. G. Scofield, September 3, Richmond, crude	75,998
W. S. Miller, September 3, Richmond, crude	73,491
Los Angeles, September 3, Martinez, crude	72,493
J. A. Moffett, September 5, Willbridge, fuel	63,547
Cathwood, September 5, Martinez, crude	75,602
K. R. Kingsbury, September 6, Richmond, crude	80,294
Richmond, September 6, Richmond, crude	63,271
Exports	
Wm. F. Herrin, August 31, Guaymas, fuel	40,298
F. H. Hillman, August 31, London, refined	115,990
Deroche, August 31, Vancouver, fuel	85,072
Trinculor (Br.), September 1, Japan, fuel	62,013
Montebello, September 3, Honolulu, fuel	83,956
La Placentia, September 4, Balboa, fuel	81,747
From Ventura	
Frank H. Buck, September 2, Avon, crude	62,473
Oleum, September 6, Martinez, crude	31,567
From San Francisco	
Lubrico, August 31, Honolulu, fuel	86,905
Solana, August 31, Seattle, fuel	69,076
Charlie Watson, September 1, Eureka, refined	15,872
Oleum, September 3, Eureka, fuel	31,987
Los Alamos, September 3, Portland, refined	40,916



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Oklahoma Field Operations

By J. L. Dwyer

Marland well extends production in Thomas Pool quarter of mile and made 461 bbls. third hour. Comar extends South Braman Pool with well making 246 bbls. hourly. Elliot and Smith complete 3,000-bbl. high gravity oil well, in Osage County. Several new wells add to output Tonkawa deep sand.

The Garber Field in Garfield County is still the principal spot of interest in the Oklahoma oil fields. While the amount of water in that field is not increasing, it is doing much to dampen the enthusiasm of the companies operating there. The Carter Oil Co. and Southwestern Petroleum Co.'s lease, the SW quarter of Section 24-22-4w, is apparently out of the running and all four deep tests on this lease are shut down. There is little change at Garber since last week but the coming week will have a great bearing on the future of the pool if the ten wells nearing the sand are completed. The daily production of Garber has hardly changed and a gauge of the wells follows:

Roxana Petroleum Corp.:	
No. 1-W Schroeder	5,100
No. 2-W Schroeder	9,685
No. 1-W Wolfe	388
Sinclair Oil & Gas Co.:	
No. 20 Kisner	2,800
No. 21 Kisner	400
No. 22 Kisner	200
No. 26 Denker	340
No. 20 Walker	975
No. 25 Belveal	1,842
Marland Oil Co. and Mid-Continent Petroleum Corp.	
No. 41 School Land	4,133
No. 42 School Land	800
No. 43 School Land	357
No. 45 School Land	5,900
Healdton Oil & Gas Co.:	
No. 29 Belveal	465
Total daily production	33,385

The Garber Field is making approximately 3,500 bbls. of water daily.

Wells Shut Down

The Marland Oil Co. and Mid-Continent Petroleum Corp. have shut down the drilling wells on the west side of their School Land lease, the SE quarter of Section 13-22-4w.

The Ozark Pipe Line Co. (Roxana) cannot handle the big output of oil from the Roxana's Schroeder lease and the Sinclair Pipe Line Co. took 3,000 bbls. of Roxana crude a day, purchasing it outright. The agreement was made for a period of 10 days, and whether it will be continued remains to be seen. The Champlin Refining Co. is taking considerable oil from the Marland Oil Co. and Mid-Continent Petroleum Co.'s lease. Just how much is not known, but it is admitted to be more oil than Champlin wants or has use for at present.

The Thomas Pool, northwest of Tonkawa, in Kay County, is the next important spot and it was roused from its state of apathy by the completion of another big well by the Marland Oil Co. The new well is No. 1-A Thomas and extends the Wilcox sand production a quarter mile to the west. No. 1-A Thomas is in the SW cor. SW, Section 15-25-2w, and it found the deep sand 4,014-54 feet with the big pay in the last eight feet. It produced 30 bbls. an hour from a depth of 4,030 feet and at 4,048 feet started flowing heavily. It was drilled to its present depth and made 266 bbls. the first hour. The largest hour's production was 461 bbls., made the third hour after the well was drilled in. It is making 6,107 bbls. a day at present. This find is of great importance as the pool's possibilities were much in doubt since the Twin State Oil Co.'s No. 2 Siler proved disappointing. The Twin State lease offsets the new well and its south offset is drilling at 3,006 feet. It looks as if it will undoubtedly be in the big money, as two bad offsets to gusher wells is too much grief to expect any company to have in one field.

South Braman Pool

In the South Braman Pool, the Comar Oil Co. has extended the pool to the northwest by the completion of No. 1 Biddle, SW cor. NE SW, Section 5-28-1w, which started flowing from the Stalnaker sand at the rate of 139 bbls. an hour. It had the sand 2,340-64 feet and at present is making 246 bbls. an hour. This well is a quarter mile north of the discovery well, Herbert Oil Co.'s No. 1 Community. Owing to the discovery of water on the west side of the pool, the outlook of the wells drilling in the region of the new well was not considered very good, and the Biddle well will very likely be the forerunner of much work. This demonstrates the uncertainty of the Stalnaker sand which, though highly productive in spots, is rather treacherous. The daily production of the South Braman Pool by wells follows:

Comar Oil Co.—	
No. 1 Bechtel	5,102
No. 2 Bechtel	3,247
No. 3 Bechtel	13
No. 1 Biddle	5,225
No. 1 Horne	2,608
No. 2 Horne	2,074
No. 3 Horne	15
No. 1 Johnson	1,243
No. 1 McCullough	241
Herbert Oil Co.—	
No. 1 Community	81
No. 2 Community	10
No. 3 Community	3
Shawver and others—	
No. 1 Townsite	20
Wentz Oil Corp.—	
No. 1 Andrews	125
Total South Braman	20,007

Big Producer in Osage

In Osage County a big surprise was sprung by Elliott & Smith when they drilled in No. 19, NW cor. SE NW NW Section 30-21-12, one of the largest wells completed in Osage County in some time. This well started flowing at the rate of 5,000 bbls. a day from a sand below the Wilcox, and is still making 3,000 bbls. a day. It was thought at first to be a flash well which would stop making such huge production in a day or two, but almost a week has passed and it is still putting out the oil. The Mississippi lime was found at 1,662 feet and the Wilcox sand, 2,040-50 feet with a hole full of water. The pay sand was touched at 2,077 feet, and the well made 150 bbls. of oil and 25 bbls. of water the first hour. The water seems to be exhausting. The unusual feature of the oil is the remarkably high gravity which is 48.5 degrees corrected. There is no oil close by that approaches this gravity. The Pierce Oil Co. is running the new production.

The Tonkawa deep sand will show an increase owing to the completion of several wells in the Wilcox sand. Wentz Oil Corp. has drilled deeper in No. 6 Mahoney, SE cor. SW SE Section 28-25-1w. It was deepened 3 feet to a total depth of 4,260 feet and the production was increased from 75 to 84 bbls. an hour. Marland Oil Co. and Mid-Continent Petroleum Co.'s No. 7-A School Land, NE cor. NE Section 33-25-1w, was completed to a total depth of 4,260 feet and had an initial production of 65 bbls. an hour. Marland Oil Co. and Mid-Continent Petroleum Co. have shot their No. 6-A School Land, SE cor. NE NE Section 33-25-1w with a light shot and the flow was increased from 200 bbls. to 1,561 bbls. the first 24 hours after the shot. A full day's gauge was not obtainable.

The Okmulgee district, which never remains out of the limelight for very long, is attracting interest again when a number of new operations were announced close to the newly completed Wilcox sand well of the Minnehoma Oil Co.'s No. 9, CNE NE Section 24-11-11. The Minnehoma well is producing about 275 bbls. a day. There are eight wells either drilling deeper or preparing to start from the top of the ground near the new find.

In the Yeager Pool in Hughes County, the Sinclair Oil & Gas Co. has a well estimated at 200 barrels in No. 1 Diamond SE cor. SW NE Section 18-8-10.

South of Hominy in Osage County, the Tidal-Osage Oil Co.'s No. 1 NW cor. SW Section 11-21-10 found the Wilcox sand 2,322-2,363 feet and the well started off at 40 bbls. an hour.

The Tonkawa deep sand activity is worthy of note. To date the Wilcox Sand at Tonkawa has produced 24,553,169 bbls. The Comar Oil Co.'s Beverlin lease is the best lease in the field and probably in the country. This lease is producing 14,690 bbls. a day from 17 deep sand wells. There are 117 deep sand wells at Tonkawa, and out of this 70 have gone dead or are making a great amount of water. Most of the deep sand wells are swabbing or being agitated, and the pumping problem in this field is still unsolved. Three Wilcox sand wells are near the pay horizon.

The crude storage situation is about the same. Last week saw 243,454 bbls. taken out of storage in Burbank, and 30,000 bbls. put into storage at Tonkawa. Tonkawa has 1,430,710 bbls. of crude in the storage tanks, of which T. B. Slick owns 804,500 bbls.

Osage County

Lewis Oil Co. is rigging up No. 13, SE cor. NE, Section 21-26-6. Its No. 11, CSL NW SE NE, Section 21-26-6 had sand at 2,909-41 feet and made 35 bbls. naturally. It was shot with 80 quarts and did 412 bbls. the first day after the shot. Carter Oil Co. has completed No. 13, SE cor. NW Section 21-26-6, which was shot with 120 quarts and made 845 bbls. from sand at 2,940-97 feet. Its No. 14, CSL SW SE NW, Section 21-26-6 had sand at 2,940-97 feet and is good for 380 bbls. after a shot of 120 quarts. Carter has completed No. 15, CSL SE SW NW, Section 21-26-6, which had sand at 2,942-3,005 feet and made 630 bbls. after a shot of 120 quarts. The Texas Co.'s No. 2, CNL NE SE, Section 29-25-8 had sand at 2,474-2,505 feet and is swabbing 30 bbls. L. C. Hivick has a dry hole in No. 1, NE cor. NW, Section 21-24-8, which is dry and abandoned at 2,503 feet. Tidal-Osage Oil Co. is drilling at 527 feet in No. 10, CEL NE SE NW, Section 25-24-8. Marland Oil Co.'s No. 7, SE cor. NW, Section 26-24-9 had the Bartlesville sand at 2,062-2,127 feet and is bridged after a shot of 120 quarts. It is being cleaned out. Barnsdall Oil Co. has completed No. 9, CSL NE, Section 11-24-10. Sand was at 1,842-1,896 feet and the well made 534 bbls. the first day after it was shot with 120 quarts. Donald Slingsluff has a duster in No. 2, NE cor. SE, Section 4-23-10, which is dry and abandoned at 2,663 feet. Meridian Petroleum Co.'s No. 6, CSL NW NW NW, Section 18-22-9 had sand at 2,316-19 feet and is swabbing 140 bbls. Tidal-Osage Oil Co.'s No. 22, CSL SW SE SW, Section 27-22-10 had sand at 1,902-43 feet and is good for 10 bbls. after a shot of 100 quarts. Owen-Osage Co. has spudded No. 343, SE cor. NW, Section 7-23-11. Indian Territory Illuminating Oil Co.'s No. 5, CNW NW, Section 1-21-8 had sand at 2,358-73 feet and is doing 75 bbls. after being shot with 30 and with 50 quarts; No. 6, CNL NW NE NW, Section 1-21-8 has a show for a shallow well at 1,205-14 feet where it looked like 40 bbls. Skelly Oil Co. and Moore have completed No. 5, NW cor. NE NE, Section 2-21-8 in sand at 2,331-64 feet. The well is making 50 bbls. and was shot with 20 quarts. Phillips Petroleum Co. has spudded No. 6, C SE SE, Section 10-21-9. Devonian Oil Co. and Marland Oil Co.'s No. 1, SE cor NE, Section 10-21-10 had sand at 2,064-85 feet with 5,000,000 feet of gas and a spray of oil. Breene and others have completed another well in No. 14, C S half NW, Section 23-21-10. Sand was at 1,630-64 feet and the well is making 75 bbls. after a shot of 150 quarts.

O'Reilly & Hick's No. 1, CEL SE SE, Section 33-20-10 had a show for a 25-bbl. well in sand at 2,610-11 feet but the water coming from higher up in the hole drowned it out. Commercial Drilling Co. has a dry hole in No. 1, SE cor. SE, Section 7-21-12, which is abandoned at 1,669 feet.

Titus and others are drilling at 840 feet in No. 4, CWL SW SW, Section 15-21-12. Skelly Oil Co. has completed No. 12, CSL SE NW, Section 16-21-12. Sand was at 1,387-1,407 feet and the well was shot with 60 quarts and is now making 25 bbls. Sand Springs Home's No. 3, NW cor. SW NW, Section 29-20-11 is dry and abandoned at 1,920 feet.

Wiser Oil Co. has completed No. 14, SW cor. SE NW, Section 27-29-11. Sand was at 912-48 feet and the well is making 90 bbls. after a shot of 80 quarts. Mid-Continent Petroleum Co. is rigged up on No. 1, SW cor. NE, Section 29-29-11. Barnsdall Oil Co. has spudded No. 5 C N half SE NW, Section 15-27-10, Foster, Davis and others have abandoned the location for No. 10, CSL SW SW NE, Section 17-25-9.

Kaupp and others have a dry hole in No. 1, SE cor. SW, Section 17-22-9 at a total depth of 2,354 feet. Barnsdall Oil Co.'s No. 15, CNL NE NE SE, Section 18-23-12 had the Bartlesville sand at 1,542-95 feet with a show of oil and the Tucker sand at 1,619-31 feet also with a show of oil. Both sands will be shot. Titus and others are rigging up a twin well, No. 3 SW cor. SW, Section 15-21-12.

Kay County

Grant Blackhurst is building a rig for No. 1, CSL SE SE SW, Section 3-28-3. McIntyre & Foster have spudded No. 1, SE cor. NE, Section 29-27-1. Twin State Oil Co. is drilling at 825 feet after having 5,000,000 feet of gas from 590-610 feet.

In the Hubbard Pool, the Marland Oil Co. has spudded No. 3, SW cor. SE NW, Section 1-26-2w.

D. M. Moore and others have a rig on the ground for No. 1, NE cor. SW, Section 19-24-2w.

Muskogee County

The Herbert Oil Co. has a machine on the ground for No. 1, SW cor. NE, Section 14-13-18.

Sequoyah County

Eureka Oil Co.'s No. 1, C SW NW, Section 33-11-25 had sand at 3,131-3,227 feet with 5,000,000 feet of gas. It is drilling at 3,260 feet.

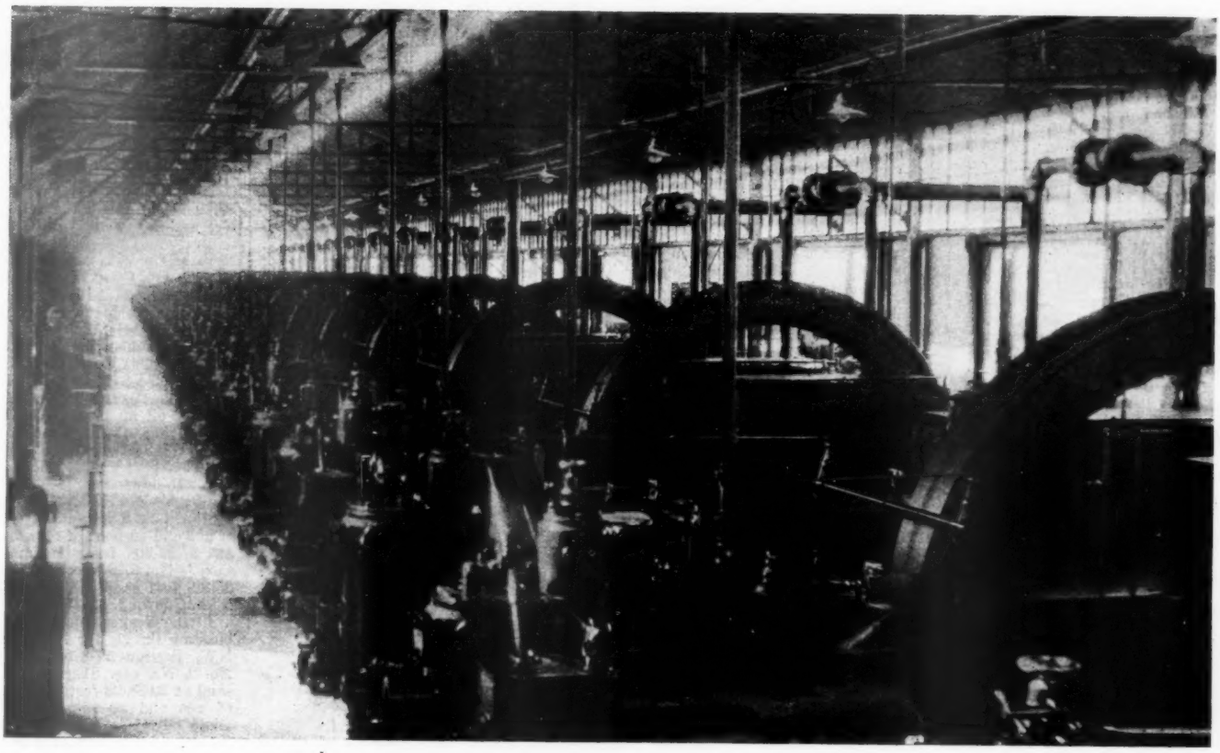
Caddo County

English Drilling Co. has completed a small pumper in No. 1, SW cor. SE SE, Section 31-6-9w. The well had a total depth of 2,395 feet and was plugged back to 2,375 feet. A broken sand was found at 1,927-75 feet and the well is pumping 30 bbls.

Garfield County

Carlew Drilling Co. is drilling an old well deeper in No. 1, NW cor. SW NW, Section 5-22-3w. Old total depth was 1,500 feet and the well is drilling at 1,750 feet. Fay Harrington's No. 1-A C NW

COOPER



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ENGINES

SE, Section 22-21-3w is drilling at 1,165 feet.

Tulsa County

Thompson & Black are drilling at 545 feet in No. 5, CWL SW NE, Section 2-18-13. Eppler and others are spudded in No. 1, CWL SW SE, Section 20-18-14.

Near Mounds, the Superior Oil Co.'s No. 3, NW cor. SW SE, Section 6-16-13 is straight reaming 8-inch casing to 2,350 feet. A hole full of water was found at 2,142-70 feet.

Sand Springs Home's No. 1, SE cor. SE, Section 12-19-11 is drilling at 450 feet. Minshell and others have a dry hole in No. 1, SE cor. SW Section 15-19-11. Total depth of the hole is 2,342 feet. Riverland Oil Co.'s No. 1-A, NW cor. SE NW, Section 20-19-11 is drilling at 459 feet. The rig is up for the Pennok Oil Co.'s No. 9, SW cor. NE NW, Section 20-19-11. Superior Oil Co.'s No. 6, CNL SE, Section 26-19-11 had the Wilcox sand at 2,281-2,300 feet and is estimated at 25 bbls. Minshall and others' No. 1, SE cor. NW SE, Section 27-19-11 is dry and abandoned at 2,370 feet. W. O. Dickenson and others have completed No. 4, CSL NE SE SW, Section 20-19-12. Sand was at 2,092-2,120 feet and the well is making 15 bbls. after a shot of 185 quarts. Brooks Drilling Co. is rigged up on No. 5, CEL SW SW, Section 29-19-12. Mutual Oil Co. has spudded No. 2, CEL NW SW, Section 29-19-12.

Payne County

Deep Rock Oil Co. is drilling at 1,161 feet in No. 1, C SW SE, Section 23-18-3. Shaffer Oil & Refining Co's No. 1, NE cor. SW, Section 23-18-3 had 1,000,000 feet of gas in sand at 3,490-3,505 feet. Mulberry Oil Co. has a rig up for No. 2, SE cor. SE, Section 31-18-4. Home Okla Oil Co.'s No. 1, CSL NE NW NW, Section 2-18-5 is dry and abandoned at 3,516 feet.

Pawnee County

Magnolia Petroleum Co.'s No. 3, SE cor. NW NE, Section 21-20-6 had sand at 2,780-2,800 feet and is estimated at 30 bbls. It is not completed. R. E. Freeman is cleaning out after a 20-quart shot in No. 2, CSL SW NE NW, Section 17-21-7. Sand was at 2,620-35 feet. Pete Adamson and others' No. 1, SE cor. SW SW, Section 32-21-8 had sand at 2,992-2,935 feet and is estimated at 20 bbls. Turner and others' No. 1, SW cor. NE, Section 8-20-7 had sand at 2,694-2,713 feet and is pumping 30 bbls. of oil and 20 bbls. of water. C. F. Noble had sand at 2,928-43 feet in No. 3, SE cor. SW SE, Section 9-20-7 and the hole is standing with 1,000 feet of oil. It will be shot. Black & Carnahan have spudded No. 2, SW cor. SE NW, Section 11-20-7. Tidal Oil Co. is drilling at 1,050 feet in No. 8, NE cor. NW NW, Section 21-20-7. Marshall & West's No. 11, NE cor. NW SW, Section 6-20-8 had sand at 2,355-80 feet and is showing for a 15-bbl. well after a shot of 20 quarts.

Okmulgee District

Near Morris, W. R. Summerville has spudded No. 3-A, CSL SW NW, Section 25-13-14. A. G. Hazlett is drilling at 1,100 feet in No. 2, CSL NW NE, Section 11-34-14.

Devonian Oil Co. and Independent Oil & Gas Co. have the rig up for No. 3, SE cor. SW, Section 7-15-13. E. B. Grubbs has the rig up for No. 1, NW cor. SE, Section 17-15-14.

Atlantic Oil Producing Co. has spudded No. 5, C S half NW SE, Section 36-12-10. Klein & Brann are drilling at 2,915 feet in No. 2, CSL SW SE, Section 4-12-11. This is an old well drilled deeper. Aztec Oil Co.'s No. 4, NW cor. SE SW, Section 31-12-12 is drilling at 3,310 feet.

E. J. Lambert has a machine on the ground for No. 4, CEL NE NE NE, Section 12-13-14. Utah Oil Co. has the rig up for No. 14, CSL SW NE, Section 15-13-14. Lebo and others are building the rig for No. 8, NE cor. SW, Section 15-13-14. Iron Mountain Oil Co. has the rig up for No. 9, CWL SE NW, Section 24-13-14. Odel Henson has a rig up for No. 2, NE cor. SE, Section 23-13-14. Wigton & Long have completed No. 2, CWL SW SW, Section 3-12-14. Sand was at 1,495-1,507 feet and the well is making 30 bbls. after a shot of 40 quarts.

Near Mounds, Turner & Suppes have another dry hole in No. 2, SE cor NW, NW, Section 9-16-12, which is abandoned at 2,448 feet. J. Winemuller's No. 4-A, NE cor. SW NE, Section 13-16-12 has a hole full of water in sand at 2,378-91 feet. It is not completed. Oklahoma Natural Gas Co. is rigging up No. 2-A, CEL NE SE SE, Section 24-16-12. Independent Oil & Gas Co. has another well in No. 12, CNL SW NW, Section 27-16-2. Sand was at 2,537-53 feet and the well did 300 bbls. after a shot of 40 quarts. Suppes & Turner's No. 4-A, NE cor. SW SE, Section 35-16-12 is dry and abandoned at 2,534 feet. Phillips Petroleum Co. is drilling at 1,100 feet in No. 1, SW cor. SE, Section 36-16-12.

The Shaffer Oil & Refining Co. has abandoned the location for No. 6, SW cor. NW SE, Section 17-15-11. Independent Oil & Gas Co.'s No. 1-A, NE cor. SE SW, Section 14-15-12 is dry and abandoned at 2,098 feet. Iron Mountain Oil Co.'s No. 1, NW cor. SW NW, Section 17-15-12 had sand at 2,170-79 feet with 2,500,000 feet of gas. It is not completed. Noble Oil & Gas Co. has spudded No. 1, SW cor. NW, Section 23-15-12. George Simons' No. 8, SE cor. SW NE, Section 12-14-11 had the top of the sand at 2,860-3,060 feet with 1,400 feet of oil and water in the hole. Sheldon-Houston Oil Co. has a rig up for No. 1, SW cor. NW SW, Section 17-14-11.

Other Operations

Kellough & Brownlee have completed No. 1, CEL SW SE, Section 34-14-12. The well had a total depth of 2,020 feet and was plugged back to a sand found at 1,728-58 feet and shot with 100 quarts. It is making 15 bbls. Southwestern Oil Fields Co. has a show for a light well in No. 2, NW cor. NE SE, Section 35-15-13. Sand was at 1,698-1,700 feet. Misener and others' No. 6, NW cor. SW NW, Section 11-15-14 had sand at 1,485-96 feet with a show for a 75-bbl. well. J. A. Swindler is drilling at 2,199 feet in No. 6-A, CEL NE SE, Section 20-15-14. Hastings and others have abandoned the location for No. 4-A, SW cor. SE NW, Section 21-15-14. Mid-Continent Petroleum Corp. has a 25-bbl. well in No. 2, CSL NE SE SE, Section 23-14-14. Total depth was 2,371 feet and the well was plugged back to a sand at 1,885-1,902 feet and shot with 80 quarts. Hazlett and others have completed a gas well in No. 1, CEL NW NW, Section 7-13-15. Sand was at 719-46 feet and the well is shut in with 500,000 feet of gas.

Charles Detter and others have a dry hole at 2,587 feet in No. 1, SW cor. NW NW, Section 23-13-11. J. A. Swindler has completed No. 3, CSL SW NE, Section 25-13-11. Sand was at 2,415-46 feet and the well made 165 bbls. naturally. Eagle Picher Co.'s No. 1, SW cor. NW SW, Section 33-13-12 is completed with 17,000,000 feet of gas from sand at 2,298-2,314 feet. Amerada Petroleum Corp. has spudded No. 8, SW cor. NW NW, Section 13-12-11. Atlantic Oil Producing Co.'s No. 1, SW cor. NE SE, Section 18-12-11 had sand at 2,746-72 feet with 6,000,000 feet of gas and is drilling at 2,775 feet.

A. C. Hazlett's No. 2, CSL NW NE, Section 11-13-14 had sand at 1,250-58 feet and is making 15 bbls. after a shot of 40 quarts. Utah Oil Co.'s No. 1, SW cor. NE, Section 15-13-14 had sand at 2,429-63 feet and is swabbing 100 bbls. It is not completed.

Savoy Oil Co.'s No. 1, NE cor. SE SE, Section 21-11-11 had top of the sand at 2,676 feet with 30,000,000 feet of gas for a few hours. It then became exhausted and the well is drilling deeper. Decises and others' No. 3, NE cor. SE NE, Section 17-11-12 has 20,000,000 feet of gas in sand at 2,436-42 feet and is shut down for orders. Gray and others have spudded No. 1, CSL SW SE SE, Section 5-12-13. W. B. Pine has spudded No. 2, NE cor. SW NE, Section 13-12-13. Sterling Oil & Gas Co. has completed a 15-bbl. well in No. 2, NE cor. SE NE, Section 30-12-14. Sand was at 2,863-2,900 feet. Pulaski Oil Co.'s No. 2, NE cor. NW NW, Section 1-11-13 is spudded.

Oklahoma Natural Gas Co. has a dry hole at 1,790 feet in No. 1, SE cor. NE SE, Section 31-15-14. Olean Petroleum Co. has a rig up for No. 5, NW cor. SE, Section 11-15-12. Independent Oil & Gas Co. is shut down at 2,592 feet with 13,000,000 feet of gas in No. 2, CWL NW NE, Section 22-12-11. Josey Oil Co. is spudded and shut down in No. 9, NE cor. SW NW, Section 33-12-11, and No. 1, SW cor. NE NW, Section 33-12-11 is spudded. Continental Oil Co. has completed a 10-bbl. well in No. 1, NW cor. NE, Section 20-12-12, where sand was found at 2,410-75 feet; No. 6, CEL NE NW, Section 20-12-12 is drilling at 975 feet. Josey Oil Co.'s No. 1, NE cor. SE NW, Section 8-11-11 had sand at 2,972-90 feet with 5,000,000 feet of gas. The well is not completed.

Hughes County

In the South Weleetka Pool, Gibson & Zanhiser have a rig on the ground for No. 3, SE cor. NE NE, Section 4-9-11. The Mid-Kansas Oil Co. has a rig on the ground for No. 3, SE cor. NW NE, Section 4-9-11. The Magnolia Petroleum Co. has a dry hole in No. 1, NW cor SE NW, Section 23-7-8. It is abandoned at 4,345 feet.

Mid-Kansas Oil Co. has spudded No. 2, NE cor. SW NE, Section 4-9-11. Tidal-Osage Co.'s No. 3, NW cor. SE NE, Section 4-9-11 had the sand at 2,874-85 feet and the well is good for 450 bbls. naturally. Tidal-Osage Co. has spudded No. 2, NE cor. NW, Section 9-9-11. Mid-Kansas Oil Co.'s No. 1, NW cor. NW, Section 10-9-11 had sand at 2,887-2,910 feet and was shot with 10 quarts. It is making 75 bbls.

In the Holdenville Pool, the Independent Oil & Gas Co.'s No. 1, SE cor. NW, Section 35-8-8 had the sand at 3,237-69 feet with 2,000,000 feet of gas and 2 bbls. of oil an hour. The hole is being cleaned out. Independent's No. 2, CEL SE NW, Section 35-8-8 had sand at 3,244-77 feet with the first oil at 3,267 feet. It is good for 40 bbls. J. W. McCullough's No. 1-A, NW cor. NE NW, Section 35-8-8 is making 40,000,000 feet of gas and 40 bbls. of oil a day from sand at 3,222-70 feet. Roxana Petroleum Corp.'s No. 2, SW cor. NW NW, Section 35-8-8 had sand at 3,195-3,223 feet and is shut down with 35,000,000 feet of gas.

In the Yeager Pool, E. L. Robinson is building the rig for No. 2, NW cor. SW NW, Section 17-8-10. Dixie Oil Co.'s No. 2, NE cor. SE, Section 18-8-10 had sand at 2,688-98 feet with 20,000,000 feet of gas and no oil. It is shut down. Dixie Oil Co.'s No. 2, NE cor. SE NE, Section 18-8-10 had sand at 2,777-93 feet and made 276 bbls. the first 17 hours. It is now swabbing 200 bbls. of oil a day. Carter Oil Co.'s No. 2, NW cor. NE NE, Section 10-8-10 had sand at 2,719-23 feet and the well flowed 450 bbls. a day. It is not completed.

Okfuskee County

Transcontinental Oil Co. has a rig on the ground for No. 1, SW cor. SE, Section 10-11-8. In the Cromwell Pool, the Sinclair Oil & Gas Co. and Houston Oil Co.'s No. 5, NE cor. NW NE, Section 33-11-8 had sand at 3,436-49 feet and the well is swabbing 275 bbls. of oil. It is not completed. Magnolia Petroleum Co.'s No. 8, SW cor. SE NE, Section 5-10-8 had sand at 3,418-58 feet with 700 feet of oil in the hole. It is making some gas.

In the Papoose Pool, the Arkansas Fuel Co.'s No. 1-A, SE cor. SW SW, Section 33-10-9 has run the 6-inch casing with a packer at 3,059 feet and the well is showing for 75 bbls. It is not completed. The Amerada Petroleum Corp. and Gilcrease Oil Co.'s No. 6, SW cor. NW SW, Section 36-10-9 had sand at 3,353-56 feet and 3,373-85 feet and was shot with 7 quarts. It is making 269 bbls.

The Bingman-Smith Oil Co. is fishing tools at 8,435 feet and the well is making 75 bbls. a day in No. 1, SE cor. SE, Section 16-13-8. Waite Phillips Co. is cleaning out to drill an old well deeper in No. 1, SW cor. SW Section 1-12-7. Old total depth is 3,861 feet.

The Prairie Oil & Gas Co. has completed a gas well in No. 1, NW cor. SE, Section 25-11-9. Sand was at 3,150-63 feet and the well is shut in with 14,500,000 feet of gas. Atlantic Oil Producing Co. has the rig up for No. 1, NE cor. NE, Section 25-11-10. J. E. Dow has

(Continued on Page 114)

Kansas Oil Field News

By J. L. Dwyer

After many attempts to establish production across the river in the Rainbow Bend district of Cowley County, the Arkansas was finally crossed by the Gypsy Oil Co., and its No. 1 Hunt is the first good well to be completed on the far banks of the stream. No. 1 Hunt is located NE cor. NW Section 21-22-3, and had a sandy shale at 3,210 feet, and the sand at 3,212 feet. Sand was drilled through at 3,219 feet, and the well had an initial production of 435 bbls. a day, an amount about equal to the initial production of the discovery well in Rainbow. The Hunt well is producing 300 bbls. at present. The Gypsy Oil Co. has made a location offsetting the Hunt. It is No. 1 J. A. Hunt, and the location is approximate owing to the bank of the river; it is SE cor. SW Section 16-33-3. Two wells have been completed in the Rainbow Pool last week which have boosted the daily production to 9,549 bbls. The owners of Rainbow the Waite Phillips Co., Independent Oil & Gas Co. and Marland Oil Co., have the following new wells; No. 1 William Snyder, SW cor. SE NW Section 21-33-3, had the chat 3,253-3,288 feet, and started flowing at the rate of 32 bbls an hour. It extends the production a quarter mile to the east. No. 8 Caldwell, NE cor. NW Section 28-33-3, had the sand at 3,259-79 feet, with the first oil at 3,267 feet. The well was bailed out every 5 feet, and oil followed the bailer. It is thought that the well will flow. This is the farthest east well in the pool, and if a producer, will extend the limits of the pool almost a half mile.

A list of the production of Cowley County follows:

Graham Pool	1,925
Rainbow	9,549
Winfield	1,860
Rock Pool	446
Carson	1,571
Clark	342
Eastman	1,247
Total	16,940

Gas Production Decreasing

The gas production of Rainbow Bend is decreasing, and where six weeks ago it was 80,000,000 feet, today it is only 38,000,000 feet.

In the Teeter Pool, in Greenwood County, the Phillips Petroleum Co. has completed No. 2 Morris, SE cor. NE SW Section 19-23-9. Sand was found 2,553-98 feet, and the well pumped 600 bbls. the first day after a shot of 120 quarts.

In the El Dorado district, the shortage of water before the heavy rain of this week had shut down many drilling operations, and had also affected some of the towns.

The Lubrite Refining Co., which has been paying a premium of 15 cents a barrel for crude in the Winfield Pool, has discontinued the premium, and in future will pay only the posted price.

In Crowley County, the Reiter-Foster Oil Corp. sold its lease including the SW SE and the NE SE Section 25-32-4, to Bagnell & Irish for a price reported at $10,000. The lease had a daily production of about 5 bbls.

Cowley County

Shawver and others have a rig up for No. 1 CSL SW SE NW Section 10-30-4. Arkansas Fuel Co. has spudded No. 1, SW cor. SW Section 20-30-4. Derby Oil Co. has a rig on the ground for No. 1, SE cor. SW Section 21-31-4. C. R. Roth and others' No. 1, SE cor. SW SW Section 20-31-5, had sand at 1,670-75 feet, with a show of gas, and more sand at 1,705-8 feet, and the well is shut down with 11,000,000 feet of gas. It is not completed.

In the Graham Pool, the Marland

(Continued on Page 108

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Keystone Pipe & Supply Company	Butler, Pa.
McEwen Bros.	Wellsville, N. Y.
Thos. H. Pike Company	Los Angeles, Cal.

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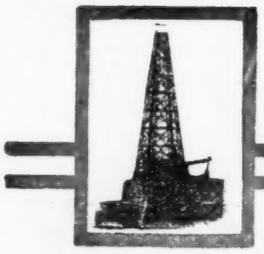


Southwest Texas Fields

By Staff Correspondent

Medina County has first real well of commercial importance in Eastham & Tarver's No. 1 Viola Wilson, southeast of Hondo. Makes 400 bbls. in three and a half days. Magnolia Co.'s No. 1 Bank, in Jim Hogg County, making 35 bbls. of oil and 200 bbls. of water, thought to be edge well. Rains aid wildcats.

SAN ANTONIO, Tex., Sept. 14.—Generous rains over a large part of southwest Texas within the last week has turned a bad condition into a good one for the wildcatter. The drought has been so bad in some places that farmers were with difficulty able to get water for their stock. Down in Karnes County in 18 months there was only one 2-inch rain. Tanks, lakes, creeks and wells were dry over a large part of southwest Texas. The rains the last week have been all the way from good rains of 2 or 3 inches up to about 8 inches in the lower Rio Grand Valley. The rain was so heavy east of Laredo it washed out 300 to 400 feet of the highway and the bridge at Augilares close to the Mirando oil field. Earthen tanks have been filled in many instances all through that territory and generally over the country around San Antonio with few exceptions water is now available for driling purposes and with the drought broken there is the chance that other rains will follow. Wildcat operations that have been shut down for weeks will start up again.

Medina County

Medina County is the center of much of the interest in southwest Texas this week, because of the Eastham & Tarver No. 1 Viola Wilson 12 miles south and a little east of Hondo and the same distance west and a little south of Devine. The first pump used on the well was too small and the engine too small. Both were replaced with larger equipment early last week and on Friday after three and one-half days' pumping with the new equipment it was claimed the well had made about 400 bbls. In the 24 hours ending at 7 a. m. last Friday it pumped 98 bbls. and it is practically free from water. What little water shows is claimed to be from the water used in washing the well. The bottom of the hole is 966 feet and there is 42 feet of brown sand and above the sand 26 feet of shale and shell, the top part of which is quite hard and compact. The well was finished by setting perforated casing at the bottom. Considerable sand has been pumped out of the hole and piles up about the slushpit. The owners of the well, Luther Eastham, Jr., and J. A. Tarver, believe they can get the well to increase in production by further washing. The Austin chalk was not reached and the sand is described by Mr. Tarver who has drilled many wells in Louisiana as similar to the Nachatoche sand. It has not been identified positively. The oil is being analyzed. It seems to be about 40 per cent lub stock and is 23 gravity. Considerable of it has been sold for fuel to other drilling rigs in Medina County and is being hauled away by truck.

The well is the first real well in Medina County to make more than relatively small production and many have been loath to believe that the No. 1 Viola Wilson would be other than a small well. The well is being steadily pumped and it will probably be two or three weeks before any further development of importance will start in the field, in order to give time for the new well to prove whether it will hold up. The owners expect to keep it on the pump steadily for a time before starting any additional wells. In a couple of more weeks they will probably be ready to make a new location. The well stopped in gumbo and there is a second sand known to exist which has never been given a thorough and satisfactory test. Eastham & Tarver have 100 acres in the lease including the well. Rydal Oil Corp. has the field pretty well checkerboarded with the Ina Oil Co. holding most of the alternate blocks. Three miles to the west Jake Wolff drilled a test about two years ago and got considerable oil corresponding to the same horizon as the Eastham & Tarver well but was unable to complete it and drilled for deeper production and finally abandoned the test. More or less pronounced showings of oil have been found in other wells about the locality. Arnett Oil Co. which has a well one-half mile southwest is this week running casing and will test. There is enough gas from the No. 1 Viola Wilson of Eastham & Tarver to pump the well and considerable to spare. The Arnett well a little to the southwest is said to have shown still more gas.

The first oil in that immediate territory was found by the Ina Oil Co. in its No. 1 hole on the east bank of Hondo Creek and about one-half mile farther north up the river from the Eastham & Tarver well. It drilled two holes on the bank of the river to about 950 feet and got considerable oil in each. The Eastham & Tarver well is offset on the east by an Ina Oil Co. well, which is close to the west bank of the river. Northwest of the Eastham & Tarver well about 1,000 feet is another well of the Ina Oil Co., giving it four producers of small output. There is nothing thus far to give an idea as to which way the field will extend.

Edwards Lime Test

Ina Oil Co. is to drill in and bail this week its No. 1 Blackburn, which is about 2 miles to the northeast, and is an Edwards lime test at 1,860 feet.

Caudill and others of Kentucky, who have lately entered Medina County with the idea of developing some shallow oil production have their first well on the Jungman tract south of Noonan ready to complete at 426 feet with 39 feet of pay formation, 26 of which is sand. They are highly elated and believe they will be able to complete a good commercial well. If the first is a success they expect to engage quite extensively in the development of a field. Shallow oil has been known to exist there but its importance and volume and commercial value are yet to be demonstrated. The same interests are unloading a light rig at Hondo to be sent 5 miles north of Hondo, where they will drill on the Claude Gilliam farm. They also have a further block south of the Gilliam block and expect to drill on it soon.

Johnson Brothers, of Ardmore, Okla., who are drilling the No. 1 Tschirhart three-fourths of a mile west of Noonan are resuming at 500 feet after repairing the boiler and getting some fuel oil. Theirs is to be a deep test. Maxwell & Turman are moving in on Block 41, 3 miles southwest of Dunlay and between Dunlay and the Ina Field.

Amy Oil Co. at Devine after a shut down of several weeks are resuming at 2,738 feet in order to make a test in the Edwards lime.

California-Medina No. 1 Rothe at 2,813 feet were 62 feet into a sand, having left the black lime that many pronounce Pennsylvanian. The well is in the western part of Medina County and northwest of D'Hanis. It is being drilled by California people. The sand entered is dry.

Jim Hogg County

Magnolia Petroleum Co.'s No. 1 Bank on survey 415 in Jim Hogg County, is making 35 bbls. of oil and 200 bbls. of water a day at a little less than 1,300 feet. It is believed to be an edge well and is the first completed in what was expected to be another nice little pool in the Mirando Field. It is about 7 miles south of the Henne, Winch & Fariss extension of the field. Magnolia willl make another location at once and drill again. Pippin has set casing in his test on survey 291, his first test which was lost, having stood about 900 feet in oil. The water in the Magnolia test is coming it seems from immediately below the oil. It may be that it can be plugged off. Further drilling all through that territory will follow the completion of the Magnolia well. Pippin's test failed to detect the sand while the well was being drilled and it had been passed some distance before the oil showed on the slushpit. Hence it was never able to get the well completed with the water shut off and there was no way telling where the water came from. The Magnolia drilled more slowly and cored and found the sand at around 1,260 feet.

Atascosa County

Atascosa Oil & Gas Co.'s No. 1 Peeler, west of Campbellton, is rigging up. Halloran & Gilliam's No. 1 Alonzo Peeler, in the southern part of the county, is shut down at 1,600 feet. A new wildcat test is about to be started in the northern edge of Atascosa County near the Bexar County line, which will be an Edwards lime test. It will be considerably east and a little south of the Somerset Field. Rio Bravo's No. 2 Cortinas, in the northwestern part of Atascosa County, near Anchorage, is rat-holing.

Bastrop County

Alexander & Lyle's No. 1 Joe Spooner is drilling after a shut down of several weeks waiting for water. The test is south of the town of Bastrop. Nelson & Dorning's No. 1 Consumer's Coal Co. is shut down at 250 feet. Cardinal Oil Co.'s No. 1 Ott, at String Prairie in southern Bastrop, is drilling at 4,165 feet. It was recently reported to have a gas showing at 3,600 feet and is now reported with a gas showing at 4,107-65 feet in broken shale and sand.

Bee County

W. G. French's No. 1 Lucas, in Bee County, is drilling at 3,000 feet, the gas showing at 2,509 feet not being sufficient. Ross & Frederick have not yet tested No. 1 Welder, east of Beeville in Bee County. It was reported with a gas showing at 2,667 feet, and after setting casing and bailing down 500 feet, the well was shut down due to disagreement over the lease.

Bexar County

Ballard & Underwood's No. 1 Eastwood, in Somerset, is drilling at a little below 4,100 feet in black lime, but not positively identified as Pennsylvanian. Making slow progress. Witherspoon Oil Co. has completed No. 3 Klemcke in the eastern part of the Somerset Field at 1,446 feet, and No. 7 Langley in the southwestern part of the field at 1,760 feet, each making about 8 bbls. Texas Southern is drilling No. 2 Avent, a deep test, at 1,400 feet. Smith & Noake's No. 1 Dietz, in eastern Bexar County, is waiting for rig, with derrick up. The Texas Co.-Plateau Oil Co. joint test on Walsh tract east of Somerset shallow production, is rigging up with rotary, to spud in within few days. Maupin and others' No. 1 Rivas, 2 miles northeast of Southton, is rigged up. Humble Oil & Refining Co.'s No. 2 Minna Coreth, southeast of San Antonio, that got hot sulphur water in the top of the Edwards at 1,466 feet, is endeavoring to get back to the bottom of the hole, which caved badly. It is understood to be the intention to drill deeper and go below the Edwards if successful in getting this hole in shape

(Continued on Page 104)

East Central Texas

By Special Correspondent

CORSICANA, Tex., Sept. 12.—Not a new well was started in the East Central Texas Field during the week in review and most of the few completions were abandonments.

The Pure Oil Co. has made a location for a test on the E. A. David farm on the Ables survey in Kaufman County.

In Limestone County the test of W. S. Yoder and others on the Sanders farm, Varela survey, Groesbeck district, which for a time looked favorable, has been abandoned at 3,100 feet after a test. In the same district the Pure Oil Co. has 1,000,000 feet of gas in the top of the sand in No. 1 Stockton, Varela survey and set pipe at 3,106 feet and has drilled to 3,123 feet. Kerr & Gillette's No. 1 Bates, Varela survey, cored a show of oil at 3,203 feet and set 6⅝-inch casing. Swearengen and others' No. 1 Deen, Thompson survey, is shut down for orders at 3,500 feet.

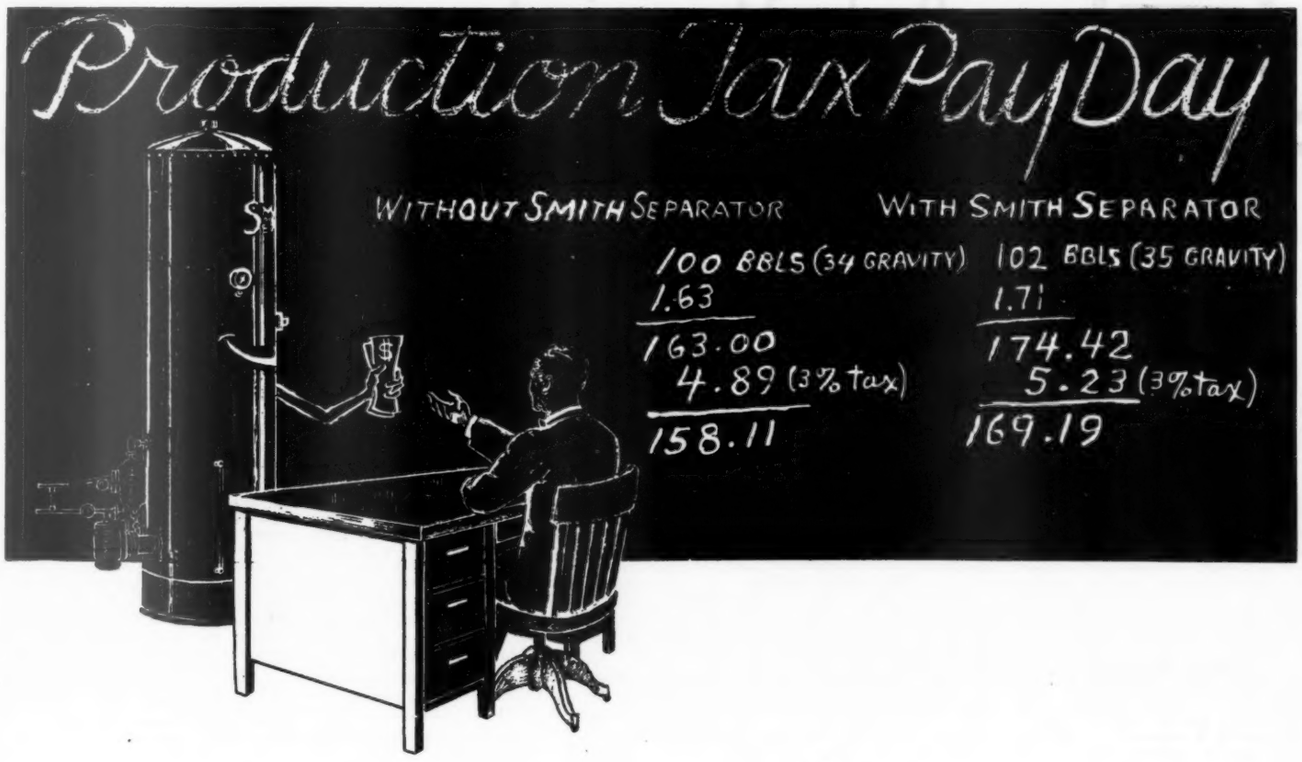
In Milam County, the J. K. Hughes Development Co.'s No. 1 Foster, Gafford survey, was dry and abandoned at 3,495 feet. The Magnolia Petroleum Co.'s No. 1 Kime, Carson survey, is drilling in lime below 3,835 feet. This well cored a showing of oil around 3,800 feet, but it would not have made a producer at that depth. John E. Lee's No. 1 Isaacs, Chambers survey, is drilling at 3,305 feet. The Simms Oil Co.'s No. 1 Stidham, Jones survey, was drilling at 3,640 feet. Butler Boys' No. 1 Woodall, Wickson survey, was drilling below 3,614 feet.

In Navarro County, the Penn and others' No. 2-C Vinson, S. Bailey survey, got the top of the chalk at 2,630 feet, which is low, and was drilling at 2,790 feet. Peacock and others' No. 1 Spencer, Wortham survey, cored sand topped at 2,933 feet and was setting pipe.

In the Powell Field, the Gulf Production Co.'s No. 8 Bush, Smith survey, tested dry at 2,200 feet and was abandoned at a total depth of 2,200 feet. The Texas Co.'s No. 14 Fleming, Weiner survey, was abandoned as dry at 1,755 feet.

In the Richland district, the Texas & Brazos Valley Railroad Co.'s No. 3-A Right of Way, Harris survey, is a 12-bbl. well at 915 to 1,014 feet. Barclay & Meadows' No. 3 Hillburn, Boren survey, was swabbing salt water at 3,197-3,200 feet. The same firm is shut down at 3,400 feet at No. 4 Hillburn. Graves and others' No. 2 Hook Stubbs, was to be drilled in with standard tools after testing mostly salt water at 2,983-97 feet.

In the Currie Field, the Atlantic Oil Producing Co.'s 300-bbl. completion, No. 2 Morrow, Hillhouse survey, later showed 50 bbls. a day of water with the oil production.



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NEW PRAIRIE SCHEDULE

Pipe Line Price		Less 3% Tax	Smith Separator Increase, Less Tax
28 to 28.9	$1.15	$1.1155	$1.217
29 " 29.9	1.23	1.1931	1.296
30 " 30.9	1.31	1.2707	1.375
31 " 31.9	1.39	1.3483	1.454
32 " 32.9	1.47	1.4259	1.534
33 " 33.9	1.55	1.5035	1.613
34 " 34.9	1.63	1.5811	1.692
35 " 35.9	1.71	1.6587	1.771
36 " 36.9	1.79	1.7363	1.850
37 " 37.9	1.87	1.8139	1.929
38 " 38.9	1.95	1.8915	2.008
39 " 39.9	2.03	1.9691	2.088
40 " 40.9	2.11	2.0467	2.167
41 " 41.9	2.19	2.1243	2.246
42 " 42.9	2.27	2.2019	2.325
43 " 43.9	2.35	2.2795	2.404
44 and up	2.43	2.3571	2.405

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Rocky Mountain Area

By F. B. Taylor

Sinclair Co. has paid $7,912,000 royalty to Government on Teapot and Salt Creek this year. Wyotah Co. gets 25-bbl. well in limestone in La Barge. Ohio Co. to drill Hidden Dome for oil. Continental Co. has 360-bbl. well, Salt Creek. Rose Oil Co. gets 1,200 bbls. and Essex-State Co. 500 bbls.

CASPER, Wyo., Sept. 12.—The United States land office at Cheyenne received a check the past week from the Sinclair Crude Oil Purchasing Agency for $528,000, being the royalty due the Government for the sale of crude oil produced on Teapot Dome for the month of August and partly from some leases in Salt Creek Field proper which are owned by the Sinclair company. This brings the total for this year paid to the Government as royalty to $7,912,000 but the Sinclair interests have received nothing for producing this oil as the money due the Mammoth Oil Co. is tied up in the receivership and the legal tangle over Teapot Dome.

La Barge Producer

The La Barge Field in Lincoln County, Wyoming, has another producer, the Wyotah Oil Co. drilled in a well with a machine, finding a limestone at 709 feet that will make a producer good for 25 bbls. in the lime. The sand that is producing at the other wells of the Wyotah is about 100 feet below this lime. The well is in Section 37-27-113.

The finding of oil in the lime in this field shows that a limestone lens is sufficiently open with cracks and fissures to contain petroleum and may become a feature of the development with the future operation and drilling. The sands of this field are lenticular, that is, they lie in irregular areas and may cover only an acre or two or may extend for miles. Where a sand lens is found to contain oil, that lens will usually be found oil bearing over all its area, but in the case of the limestone lens, the lime may become solid rock and have no petroleum content.

Practically all tankage is now filled in the field, a few new tanks of small size are being built, but the producers see no market for their oil except the sale of crude for fuel to other operators. The next well expected in is that of the Elkhorn Oil Co. on Section 17-27-113, which is at 1,420 feet.

Glenrock Gas Franchise

The New York Oil Co. has secured the franchise for supplying the town of Glenrock with natural gas. Glenrock is in Converse County, about 28 miles east of Casper and at the east end of the Big Muddy Field. The population numbers about 5,000 and the town is located in a rich farming district. The Continental refinery and the adjacent plant of the Standard of Indiana for cracking the rerun oils of the Continental refinery, are the main industries outside of the business derived from the Big Muddy Field. The New York Oil Co. is also interested in furnishing gas for fuel to the refineries and has a gas supply that is ample for both the refining plants and the town needs. A pipe line from Casper to Glenrock would be about 28 miles long. Such a line would probably be 12-inch pipe, either Dresser couplings or welded joints.

Seek Oil in Hidden Dome

The Ohio Oil Co., drilling on the Hidden Dome in the Big Horn Basin east of Worland about 15 miles, has succeeded in shutting off the heavy gas flow found at 1,700 feet and is now drilling to the Dakota sand. The Hidden Dome is a gas structure that has been producing natural gas for several years and the gas is piped to Greybull where it is used for domestic purposes and in the Standard refinery at that place. The Ohio's well was reported a big gasser several months ago and in the reports of wells it is considered a completion, but drilling has been resumed after the gas pressure has been shut off with a string of casing and the well will now go back in the drilling column. The geologists consider that Hidden Dome always held good possibilities of containing oil either on the edge of the gas area or in the sands under the gas sands. The Ohio is going to prove the theory with the present hole.

Big Muddy Drilling

The long drawn out trouble between the Glenrock Sheep Co. and the Merritt Oil Corp., over the Merritt's operations on the Sheep Co.'s lands in the Big Muddy Field has been settled and an amicable arrangement reached by which the field work will be continued by the oil firm. This means in effect that further drilling in Big Muddy may be looked for at once and the Continental Oil Co., which took over the Merrit holdings in Big Muddy to operate same, is expected to start wells drilling there at once. Big Muddy has been very quiet for the past three years on account of legal difficulties over lands there and it has been proven by the Midwest drilling, before the Midwest turned over its holdings to the Mutual and Continental, that the Dakota and Lakota sands are productive. The Midwest drilled one deep test to the Lakota that found commercial production there, so it is expected the Continental will now start drilling deep wells in the field. The Big Muddy is a good field for rotaries, many of the wells put down there having been drilled by this type of outfit.

Good Salt Creek Well

The Continental Oil Co. brought in the best well of the week in the Salt Creek Field, No. 1-A on Boston-Wyoming acreage in Section 2-29-79, which developed a big flow of dry gas in the top of the second Wall Creek sand last week. After a shot, oil began to flow at the rate of 200 bbls. an hour, and the well has now subsided to 360 bbls. a day, or better. The Continental brought in a 70-bbl. well on the next section, and a 100-bbl. well on Section 30-40-78. The Continental deep test on Section 2-39-79 has passed the Sundance sand, presumably, and is now headed for the Embar. It was announced recently the hole would be carried to the Madison lime for a complete test of all sands.

The Midwest Refining Co. reports 11 completions in the Salt Creek Field during the week. Production figures are not available on most of these wells, the best test reported being 127 bbls. swabbed from Wyoming Associated No. 3-A on Section 34-40-79. A 75-bbl. well was reported on Midwest Oil and Wyoming Associated joint holdings on Section 36-40-79, production coming from the second Wall Creek. The same companies No. 21-A on the same section came in an average producer at 1,687 feet and No. 12-A at 1,660 feet. Midwest Oil No. 2 on Section 27-40-78 was completed and shot at 1,305 feet, and the same company's No. 22-A on Section 35 tested 60 bbls. after a shot at 1,535 feet. Midwest Oil Co.'s No. 29-A on Section 11 is a sand producer, not tested, and No. 3-A on Section 26 is producing after a shot at 1,473 feet. Wyoming Associated's No. 33-A on Section 26 and the same company's No. 6-A on Section 35 were shot and will be put on the pump at once. One well was completed on Mountain & Gulf holdings in Sectin 13-40-79.

The Texas Production Co. completed a 75-bbl. well in the Salt Creek Field on Tract V, in Section 19-40-78.

The E. T. Williams Oil Co. has started a new well on Section 11-39-79 in the southern part of the Salt Creek Field. In the northeastesn part of the field, Schuster Brothers have a new test under way. The Schusters have been very successful in their drilling operations on this lease, which is located in Section 32-40-78, and lies toward the eastern edge of the field.

Colorado Developments

One of the important developments of the week in Colorado was the formal taking over of the Moat-Craig pipe line by The Texas Co. The line was formerly the property of the Prairie Oil & Gas Co., which at the time of the opening of the Craig (Moffat) Field, laid the line with a view to continuing it to the Parco refinery in southern Wyoming. The Texas Co. controls the production in the Craig Field, and the new arangement is the logical one. The transaction included title to the tank farm, the booster station, and the loading racks erected by the Prairie.

During the month of August, the Fort Collins and Wellington fields in northern Colorado shipped 43,800 bbls. of crude oil to the refineries at Florence and Salt Lake City. The oil was valued at $96,360 under the present scale of prices. Of this amount, 192 cars of crude were shipped from the Fort Collins Field and 27 from the Wellington. The latter field has only one oil producer, the previous completions in the field being gas wells.

The Midwest Refining Co. carried its No. 1 Parkinson in the Iles Dome in northern Colorado to the Lakota sand, encountering water. The well has been plugged back to the shale where a 75-bbl. production was developed, and is running clean oil again. The disposition of the production of the two wells on the Iles Dome is still something of a problem. The Midwest has about abandoned the idea of tying into the Texas (formerly Prairie) line from the Moffat Field, and may lay a line of its own if the production of the wells holds up.

Kevin-Sunburst

Twelve oil wells were reported from the Kevin-Sunburst Field last week, while one gas well was completed during the same period. No dusters were reported. The best wells reported were the Rose Oil Co.'s No. 7 Byrne on Section 31-35-1, and the Essex-State well. The former came in with an initial production of 1,200 bbls., while the Essex well showed for a 500-bbl. production. The Ohio Oil Co.'s No. 7 Norem tested 100 bbls. Other completions averaged 30 or 40 bbls. to the well. The Kevin-Sunburst Field had 365 producing wells at the end of the week, and daily runs averaged 11,750 bbls. The Queen City Oil Co.'s No. 10 Moore still holds the record for individual production, having produced 90,000 bbls. of oil since its completion, according to figures compiled in Shelby. The well is still making 500 bbls. of oil a day. The Big West Oil Co. wells on the Allen lease, which rivaled the Queen City wells at the time of completion, have stopped flowing. The wells are now being agitated, and production is coming up again. The one gas well reported during the past week was the California Co.'s No. 2 Abell.

Only one completion was reported from the Cat Creek Field, and that was an edge well, drilled by the Maser Oil Co.

(Continued on Page 114)

Pennsylvania-West Virginia

By D. S. Wakenight

PITTSBURGH, Pa., Sept. 14.—Development work in the Eastern fields during the past week was featured by the completion of the nearest approach to a gusher—as gushers are rated in the East—of any well completed in the Eastern fields in more than two years. Strange as it may seem, the well is located in the old southwest Pennsylvania fields and in a locality that was thought to have been fairly well drilled over many years ago. It is the Consumers Fuel Co.'s test on the Thomas Anderson farm, located on Patterson Creek, Morris Township, Greene County and 2,000 feet distant from the good producer completed on the T. F. Rutan farm more than three weeks ago.

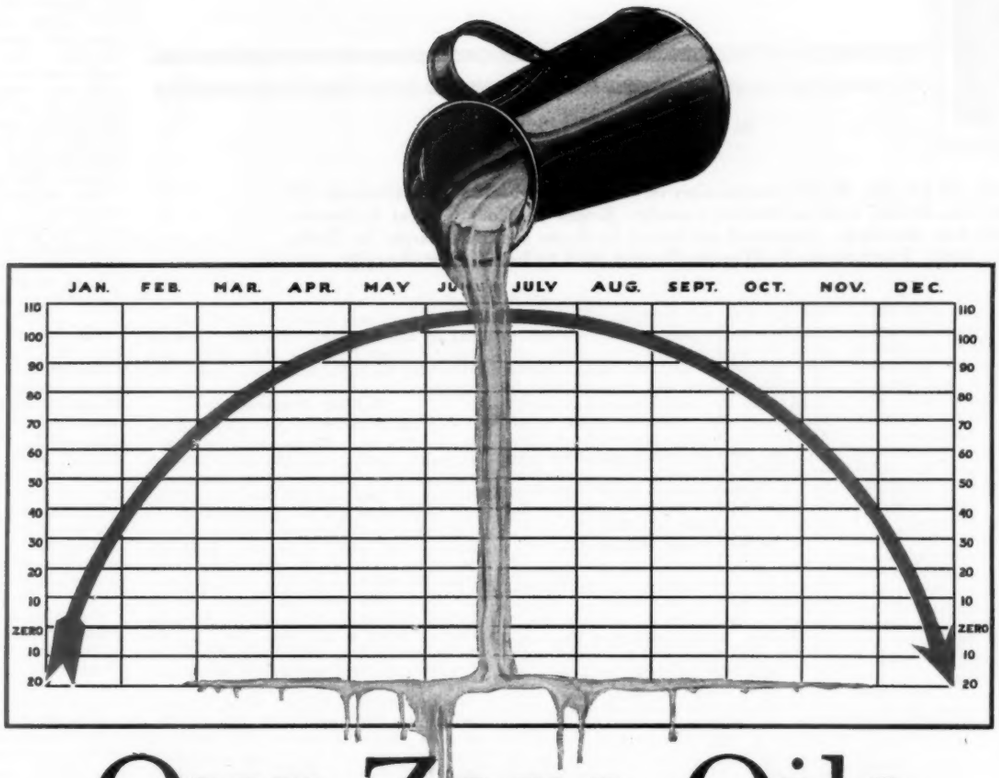
The oil was developed in the Nineveh 30-foot sand and the well produced 410 bbls. the first 24 hours after drilled into the pay. The location of this and the Rutan well is 1 mile southwest of the old Nineveh Pool. There is room in that locality for considerable development work and a number of rigs are building and locations made. The Rutan well having declined to less than 100 bbls. a day was drilled a little deeper and its production increased to 225 bbls. a day. For several days the Anderson farm well held up close to its initial production and then started to decline and at the end of one week was down to 270 bbls.

The southeastern Ohio fields had two fair completions, located in deep sand territory. In the southwest quarter of Section 14, Washington Township, Hocking County, the Gordon Oil Co. has drilled through the Clinton sand a test on the George Athony farm. It is a natural producer and placed 100 bbls. to its credit the first 24 hours after drilled through the sand. In Lot 119, Athens Township, Athens County, Clark and others have started to drill a test on the W. E. Baker farm. In Lot 74, Kingsberry & Co. have started to drill a test on the S. I. Higginson farm. In Lot 15, Hanover Township, Licking County, the Edward H. Everett Co. completed and shot in the Clinton sand a test on the Mary E. Simpson farm. By swabbing they recovered 80 bbls. the first 24 hours. In Lot 4, Chatham Township, Medina County, E. R. Edson & Son have completed No. 22 on the Carl G. Packard farm good for 3 bbls. a day.

In Section 24, Alexander Township, Athens County, Gross, Frebault & Co., have a 3-bbl. pumper in the Berea grit at No. 5 on the N. W. Radford farm. In Lot 94, Athens Township, the Fisher Oil & Gas Co. has a show for a light pumper at a second test on the S. H. Hibbard farm. In Section 21, Madison Township, Perry County, the Atha Oil Co. has started to drill No. 12 on the Melick Brothers' farm.

In the northeast quarter of Section 25, Falls Gore Township, Hocking County, the Old Town Oil & Gas Co. completed in the Berea grit a test on the Grant Dicken farm. A good showing of oil was developed and a large amount of salt water. The location is 2,000 feet north of the Eurick Oil & Gas Co.'s test on the Harry K. Starr farm. In Section 14, Monroe Township, Perry County, Marshall & Marshall's No. 22 on the Donohue farm is through the Berea grit and

(Continued on Page 76)



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CROWN CENTRAL
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New York-Houston

Kentucky—Tennessee

By Vern T. Whitney

Leeper Oil Co. has 25-bbl. completion in Owensboro Field; New Domain Oil & Gas Co., 30-bbl. well in Warren County. Kopel Oil Co.'s wildcat in Barren County has showing. Reported oil found in three separate sands in Glade, Tenn., well. Earthquake in Warren County said to have affected wells.

BOWLING GREEN, Ky., Sept. 14.—Although the week was unusually quiet, there were a few important completions in both eastern and western Kentucky. In the west end, a 25-bbl. well brought in by the Leeper Oil Co. at Collier Station in the Owensboro district, a 30-bbl. producer on the Bessie Snell lease, in Warren County, completed by the New Domain Oil & Gas Co., and the showing made in a wildcat test on the Myers farm in Barren County, drilled by the Kopel Oil Co., are the features.

In the eastern division, the D. L. Johnson well on the Gathright Land Co.'s property slightly in advance of the gas field in Owsley County is reported to be good for 2,151,000 feet of gas from the Corniferous sand, and, in the same neighborhood, the Petroleum Exploration reports two good gas wells.

The most interesting news from Tennessee is the completion of the Stoll Oil Refining Co.'s line from Tinsley's Bottom, in Clay and Jackson Counties, to the loading racks at Windle, Overton County, on the Tennessee Central Railway. At Glade, in the sixth civil district, Morgan County, 5 miles southwest of the production at Sunbright, Knoxville parties are reported to have struck oil in three separate pay sands at a total depth of about 1,300 feet. The worth of the test is not yet known, as in shooting the upper pay with 80 quarts of nitro the casing was loosened. Leasing has been active in the Sunbright section during the summer and this new completion encourages operators to believe an extensive pool has been opened, possibly continuous from Sunbright to Glade.

Week's Work

During the past week there were 30 completions made in the Blue Grass State, 17 are oil wells with a flush production of 154 bbls., 10 dusters and 3 gas wells. Compared with the previous week, 6 less completions, the same number less producers, 1 less dry hole, 1 additional gasser and a decrease of 136 bbls. in initial yield is noted. The wells were distributed by counties as follows:

County	Comp.	Wells	Prod.	Dry	Gas
Barren	8	5	36	3	0
Warren	4	3	43	1	0
Owensboro Dist.	4	2	33	2	0
Allen	4	3	23	1	0
Lee-Owsley	3	0	0	0	3
Johnson-Magoffin	3	3	14	0	0
Cumberland	1	0	0	1	0
Morgan	1	0	0	1	0
Wolfe	1	1	5	0	0
Grayson	1	0	0	1	0
Total	30	17	154	10	3
Last week	36	23	290	11	2
Difference	6	6	136	1	1

Earthquake Increases Flow?

A slight earthquake tremor, which was felt in the neighborhood of Bowling Green and as far north as Louisville, is said to have increased the production of many wells in its path. Some leases are reported to have improved to such an extent that 50 per cent more oil was delivered to tanks the day following the quake.

The well on the Russell lease, adjoining the Hudson tract, 1 mile west to the stone quarry in western Warren County, which was drilled five years ago to a depth of 1,038 feet and later abandoned because of its small production, was opened a short time ago with the intention of pulling the pipe, but upon finding the hole full of fluid, the owners, the Beaver Petroleum Co., decided to clean the well and pump it. After running the tools, the well began flowing oil with a strong gas pressure and ignited from the boiler, causing a terrific explosion. The driller's clothes caught fire, but the flames were overcome. However, the rig and nearby equipment were completely destroyed. It is supposed that the strange action of the well might be explained by the earthquake opening a gas crevice below the fluid.

Warren County Completions

The New Domain Oil & Gas Co., Standard Oil subsidiary, is credited with the best well of the week in Warren County. It is No. 7 on the Bessie Snell place, in the Davenport Pool, good for 30 bbls. flush at 1,142 feet. Shale was from 956 to 1,042 feet and the sand from 1,108 to 1,131 feet, which was shot with 60 quarts of nitro. This well, the first to be drilled in many months in this section of the State by the New Domain, was a location southeast of No. 7 Wilson. No. 8 Snell is being started 450 feet north of No. 7. On the Wilson farm, adjoining the Snell, Onsel Brothers brought in their No. 10 for 10 bbls. at 1,299 feet, approximately 86 feet below the shale.

In the vicinity of Plano, south and east of Bowling Green, the Evans Oil Corp.'s No. 2 Covington made 3 bbls. after being shot at 369 feet.

In eastern Warren County, Ruth Turner's No. 1 W. E. Hardcastle is on salt water at 220 feet.

Barren County News

The finding of oil in a wildcat test 2 miles west of Glasgow by Phillip Kopel features the week's work in the Barren County Field. This well, No. 1 Myers, came in at 498 feet; in a short time oil rose 420 feet in the hole and, for fear of an overflow from gas pressure, the well was capped until tankage could be erected. The top of the shale was found at 165 feet, and at 130 feet under a strong flow of gas was encountered which held up drilling for some time.

While this well is not in any proven territory, it might be called an extension of the Emery-Moore Pool. However, those versed in such matters are rather inclined to the view that it is the opening of a new pool. No estimate has been made on the production of the well, but it is safe to estimate it will make at least a barrel per hour flush.

The test made by Prindle and others on the Thomas Furlong farm, 10 miles southeast of Glasgow, on the Fountain Run Road, was finished dry at 440 feet, 220 feet below the black shale. Another test, drilled by Keyes & Moorman and others, near Austin, 12 miles out of Glasgow, was plugged at 200 feet under the shale.

In the Emery-Moore Pool, Fred Moore's No. 5 Bruton tested 8 bbls. at 540 feet; Star Oil Co.'s No. 35 Ritchie, 7 bbls. at 592 feet, and Craig, Craig & Smith's No. 16 Smith, 3 bbls. at 445 feet.

The Wood Oil Co.'s No. 9 J. M. Church, in the Hall Baker area, north of Glasgow, is estimated good for 15 bbls. at 550 feet, approximately 110 feet below the shale; Harrington & Norris' No. 1 Mattox heirs, outside the bounds of the pool, was plugged in the regular pay at 110 feet below the shale. Across Beaver Creek from the Hall Baker, the Wood Oil Co.'s No. 3 Redman is a 3-bbl. starter.

Drilling Progress

Star Oil & Gas Co.'s No. 6 Free, drilling at 325 feet; Keyes Oil Corp.'s No. 1 Smith, drilling at 150 feet; Ziegler Bothers' Nos. 12 and 13 T. Mansfield, drilling at 380 and 450 feet, respectively; Wood Oil Co.'s No. 4 Redman, cleaning out; No. 5 Redman, drilling at the base of the black shale; No. 5 Houck Brothers, drilling at 340 feet; John Church's No. 8, drilling at 40 feet below the shale; Harrington & Norris' No. 10 Evans, drilling at 275 feet; No. 3 Hucherson, drilling at 250 feet. No. 1 Hucherson, which was drilled deeper, caught fire from the shot and destroyed the rig. The well is estimated good for 4 bbls. The Consolidated Gas Co.'s No. 8 Depp, drilling at 200 feet; L. J. Emery, Jr., & Sons' No. 4 Greer was deepened to the deep pay and shot, and resulted in an 8-bbl. starter; No. 2 Preston, drilling at 350 feet; Porter and others' No. 10 McGlockin, drilling at 100 feet. No. 6, which has been producing from the amber pay, was deepened to below the shale sand, where it is good for 10 bbls. The Hiland Oil Co.'s No. 8 Cassidy, drilling at 150 feet; Esslinger Oil Co.'s No. 7 Jones is being cleaned out after a shot; Smith & Sons' No. 8 Nichols, drilling below the black shale.

Owensboro District

Daviess County, in the Owensboro district, added to its list of oil wells when the Leeper Oil Co. brought in No. 3 J. S. Collier, southwest of No. 2, for 25 bbls. flush from the Jett sand at about 480 feet. This tract is on the line between Daviess and Ohio Counties. Three wells have been finished in the former county on the Collier farm and two in the latter. This same concern finished its No. 3 H. D. Brown, in the Pellville Pool, good for 8 bbls. in the Jett sand at about 450 feet.

Two wildcat tests, one drilled by the Wood Oil Co. on the Tyler tract in the Pellville district, and the other drilled by Randolph & Carson on the Weddingfield, west of the Griffith, were reported dry and plugged at 452 and 576 feet, respectively.

Holds Annual Meet

The Spice Knob Oil & Gas Development Co., organized under the laws of Delaware, held its annual meeting and elected officers for the ensuing year. Thomas Morgan was made president and treasurer; Robert J. Morgan, vice president, and L. A. Morgan, secretary. This company began operations last May, having secured the Bert Thompson 40-acre tract, at Pellville. It has so far drilled four producing wells on this tract, the last being brought in about the middle of August. Preparations are being made to drill another as soon as an idle rig can be secured.

To Drill Near City

Following the advice of geologists, a company, backed by Owensboro capital, is preparing to drill a number of wells about 4 miles from the city of Owensboro on the Leitchfield road. The first will be sunk on the James Miller place.

It is reported that considerable activity in leasing is going forward in the vicinity of Fordsville. One of the largest refining companies in Pennsylvania is said to be taking leases of oil rights in that locality.

Development Work

A survey of the development under way in the Owensboro Field, consisting of Hancock, Ohio and Daviess Counties, shows the following: Local parties' No.

(Continued on Page 96)

Fields of the Central West

By Whit

FINDLAY, Ohio, Sept. 14.—There is a noticeable slump in development in the Central West Field, although the Lima and Central Ohio Fields are holding better than any of the others, while the Indiana and Illinois ends are very quiet. The slump in new work is due to a great extent to the lowering of crude prices, to extremely hot weather and a scarcity of water for drilling purposes. Operators are by no means discouraged, for they are only passing through what they have for a great many years. The completion of a 500-bbl. gusher in the Allendale Field of Wabash County, Illinois, may bring about another active drilling campaign, as the finding of a big well comes quite often in that area and the surroundings usually are tested out within a short time.

Due to conditions, the week in review shows less completed wells in the northern section of the Central West Field than any period since early spring, there being but 18 reported, and they were distributed by fields as follows:

Field	Comp.	Prod.	Dry	Gas
Lima	13	98	2	1
Central Ohio	1	0	1	0
Indiana	2	15	0	1
Illinois	2	532	0	0
Total	18	645	3	2

Lima Field

The bulk of the completions of the Central West Field were centered in the Lima Field of northwestern Ohio, and they were well scattered over seven different counties.

Shelby County, the new southern extension to the field, is credited with four new wells, but they were of little value, being dry or small strippers. In McLean Township, of this county, Slagel & Johnson's test, 1,000 feet from the north line and 300 feet from the east line of the H. Barhorst farm, in the southwest quarter of Section 3, was a duster. Top of Trenton was found at 1,249 feet and drilled 40 feet in to a total depth of 1,289 feet. Two miles north and about a mile east of the duster on the Barhorst farm, Robinson and Burke's test, 1,200 feet from the north line and 250 feet from the west line of the Casper Luthman farm, in the northeast quarter of Section 5, same township, was also a duster. Top of Trenton at 1,237 feet and drilled 40 feet in. These wells are something near 4 miles southwest of the town of Minister, and in an untested area of the county, and near the Darke County line.

In Cynthian Township, Shelby County, 4 miles south of the dry hole on the Barhorst farm, also near the Darke County line, Lee A. Watson drilled in a 2-bbl. well at a test on the southwest corner of the H. Wiseman farm, in the southwest quarter of Section 27. In the same township, the Eilerman Oil Co.'s second test, 600 feet from the south line and 250 feet from the east line of the J. W. Klocher farm, in the northwest quarter of Section 35, is a 1-bbl. well, with top of Trenton at 1,246 feet and drilled 45 feet in.

Quiet in Payne

Things are rather quiet in the new Payne Field, in Paulding County. Only one completion comes from this field,

(Continued on Page 92)

Government's Petroleum Statistical Report for 1924

PRODUCTION BY FIELDS AND CLASSIFICATION BY GRAVITY
(Thousands of barrels of 42 U. S. gallons.)

Field—	January	February	March	April	May	June	July	August	September	October	November	December	1924	1923
Appalachian	2,100	2,104	2,268	2,343	2,361	2,254	2,416	2,251	2,298	2,434	2,075	2,152	27,056	28,225
Lima-Indiana	162	181	202	209	210	211	207	192	194	202	157	160	2,287	2,404
Illinois and Southwest Indiana	683	705	786	680	775	749	784	744	738	767	672	664	8,747	9,500
Mid-Continent *	26,923	27,375	30,822	31,075	32,684	31,822	32,966	33,882	33,120	32,668	31,116	31,026	375,479	348,460
Gulf Coast	2,321	2,432	2,538	2,273	2,395	2,303	2,519	2,352	2,339	2,589	2,333	2,175	28,569	33,271
*Rocky Mountain	4,389	3,951	3,823	4,156	3,789	3,640	3,740	2,846	3,363	3,092	2,642	2,438	42,869	47,671
California	20,695	19,141	19,702	19,094	19,620	18,604	19,300	19,131	18,324	18,717	17,787	18,818	228,933	262,876
Total	57,273	55,889	60,141	59,830	61,834	59,583	61,932	62,398	60,376	60,469	56,782	57,433	713,940	732,407
Classification by Gravity—														
Light crude, 24° (o.910) and lighter	45,342	43,384	45,951	45,409	46,279	44,566	46,374	47,454	46,195	45,775	43,040	42,909	543,678	598,492
Heavy crude, heavier than 24° A.P.I.	11,931	12,505	14,190	14,421	15,555	15,017	15,558	14,944	14,181	14,694	13,742	13,524	170,262	133,915
Total	57,273	55,889	60,141	59,830	61,834	59,583	61,932	62,398	60,376	60,469	56,782	57,433	713,940	732,407

*Includes Alaska.

IMPORTS AND EXPORTS OF CRUDE PETROLEUM*
(Thousands of barrels of 42 U. S. gallons.)

Imports:	January	February	March	April	May	June	July	August	September	October	November	December	1924	1923
From Mexico	6,248	6,511	8,315	6,988	6,718	6,206	5,900	5,324	4,902	4,653	6,373	5,841	73,979	79,354
From other countries	55	.....	316	309	675	454	602	438	452	219	276	.....	3,796	2,661
Total	6,302	6,511	8,631	7,297	7,393	6,660	6,502	5,762	5,354	4,872	6,649	5,841	77,775	82,015
Exports:														
Domestic crude oil:														
To Canada	678	917	973	1,242	1,195	1,125	813	907	859	887	910	486	10,992	8,826
To other countries	802	734	477	278	628	392	556	298	956	489	526	477	6,613	8,235
Foreign crude oil	48	29	35	27	27	25	40	37	20	47	17	16	368	324
Total	1,528	1,680	1,485	1,547	1,850	1,542	1,409	1,242	1,835	1,423	1,453	979	17,973	17,385

*Bureau of Foreign and Domestic Commerce.

SHIPMENTS OF CALIFORNIA OIL THROUGH PANAMA CANAL TO EASTERN PORTS IN UNITED STATES
(From the Panama Canal Record)
(Compiled from declarations by masters of vessels reported in tons of 2,240 pounds.)

Crude oil:	January	February	March	April	May	June	July	August	September	October	November	December	1924	1923
Thousands of long tons	692	634	624	403	497	459	393	347	487	336	286	331	5,489	7,358
Thousands of barrels	5,055	4,631	4,551	2,939	3,631	3,353	2,865	2,534	3,554	2,456	2,087	2,417	40,073	52,983
Refined products:														
Thousands of long tons	44	41	30	56	50	53	50	149	44	61	30	54	662	459

STOCKS OF CRUDE PETROLEUM
(Thousands of barrels of 42 U. S. gallons.)

PIPE LINE AND TANK FARM STOCKS:		Jan. 31, 1924	February 29	March 31	April 30	May 31	June 30	July 31	August 31	Sept. 30	Oct. 31	Nov. 30	Dec. 31, 1924	Dec. 31, 1923	Producers' stocks held at the wells Dec.31 1923	Dec.31 1924
Domestic, by fields of origin:																
East of California:																
Appalachian:																
N. Y., Pa., W. Va., Eastern and Central Ohio:	Gross	6,791	6,699	6,556	6,377	6,581	6,495	6,846	6,796	7,027	7,197	7,233	7,261	6,606	506	495
	Net	6,516	6,424	6,282	6,103	6,312	6,225	6,586	6,566	6,769	6,938	6,981	7,020	6,331		
Kentucky:	Gross	2,969	2,818	2,677	2,635	2,658	2,719	2,743	2,645	2,543	2,528	2,521	2,388	2,007		
	Net	2,847	2,696	2,549	2,505	2,527	2,593	2,621	2,533	2,414	2,400	2,398	2,266	2,879		
Lima-Indiana:	Gross	1,152	1,163	1,209	1,215	1,246	1,294	1,349	1,393	1,438	1,468	1,433	1,431	1,211	45	42
	Net	917	927	973	986	1,017	1,064	1,124	1,169	1,229	1,253	1,218	1,221	975		
Illinois-Southwest Indiana:	Gross	11,519	11,456	11,467	11,310	11,513	11,463	11,537	11,770	11,845	11,762	11,562	11,401	11,528	152	153
	Net	11,071	10,998	11,009	10,843	11,016	10,966	11,040	11,268	11,314	11,231	11,031	10,870	11,091		
Mid-Continent:																
Oklahoma, Kansas; North, Central and West Texas:	Gross	180,142	179,590	178,990	180,800	182,133	185,663	187,920	192,193	193,983	194,037	192,574	187,884	183,052	7,173	6,312
	Net	168,898	168,177	167,406	169,327	170,449	173,934	176,433	180,667	182,061	182,863	181,489	176,754	171,781		
North Louisiana and Arkansas:	Gross	33,766	33,890	35,150	36,980	38,506	39,592	39,049	38,355	37,563	37,945	36,793	36,047	32,927		
	Net	31,882	31,993	32,696	34,896	36,329	37,392	36,931	36,213	35,447	35,808	34,756	33,804	31,123		
Gulf Coast:	Gross	23,936	24,004	23,290	22,610	22,334	20,757	21,415	21,509	21,665	21,524	21,112	20,565	24,355	990	624
	Net	23,532	23,591	22,865	22,174	21,901	20,357	21,016	21,084	21,253	21,115	20,729	20,200	23,974		
Rocky Mountain:	Gross	21,449	22,892	23,957	25,373	26,369	27,269	28,246	29,711	29,836	29,266	28,969	28,711	19,718	984	763
	Net	21,423	22,875	23,939	25,360	26,356	27,257	28,224	29,685	29,810	29,242	28,931	28,672	19,704		
California*		63,314	63,151	64,986	65,045	66,154	66,462	67,181	68,007	70,104	68,640	69,226	69,813	62,162	9,850	8,389
Foreign crude petroleum held in U. S. by importers elsewhere than at refineries:																
At Atlantic coast stations		239	145	241	312	358	251	215	297	264	128	202	199	324		
At Gulf coats stations		957	1,013	1,038	1,069	978	913	1,003	796	555	461	572	535	1,059		
Total		1,196	1,158	1,279	1,381	1,336	1,164	1,218	1,093	819	589	774	734	1,383		
Total domestic net pipe line and tank farm stocks east of California, California stocks, and foreign crude stocks (as stated above)		331,596	331,990	333,984	338,620	343,397	347,415	352,374	358,285	361,218	360,078	357,533	351,364	331,403		
REFINERY STOCKS (held at refineries):																
Domestic crude oil:																
East of California		24,393	26,537	28,266	28,865	29,358	29,112	29,109	29,602	29,434	28,442	28,559	27,890	24,213		
California		6,070	6,332	5,779	5,636	5,774	6,246	6,616	7,305	8,357	9,192	8,852	9,811	5,543		
Foreign crude oil		3,630	4,305	4,705	5,510	5,369	5,142	4,245	3,729	3,758	2,685	2,993	3,294	3,503		
Total crude oil at refineries		34,093	37,174	38,750	40,011	40,501	40,500	39,970	40,636	41,549	40,319	40,404	40,995	33,259		
Total		365,689	369,164	372,734	378,631	383,898	387,915	392,344	398,921	402,767	400,397	397,937	392,349	364,662		

*Producers' pipe line and tank farm stocks of crude oil, residuum and tops (American Petroleum Institute).

INDICATED DELIVERIES OF DOMESTIC AND FOREIGN CRUDE PETROLEUM TO DOMESTIC CONSUMERS
(Thousands of barrels of 42 U. S. gallons.)

Domestic petroleum by fields of origin:	January	February	March	April	May	June	July	August	September	October	November	December	1924	1923
Appalachian	1,948	2,348	2,558	2,567	2,131	2,275	2,028	2,360	2,215	2,280	2,035	2,246	26,991	27,788
Lima-Indiana	220	171	156	196	180	164	148	148	136	176	192	157	2,044	2,126
Illinois and S. W. Indiana	703	777	775	846	602	799	710	516	692	850	872	825	8,967	8,563
Mid-Continent	29,120	28,054	30,963	27,025	30,202	27,344	31,001	30,439	32,562	31,579	33,611	36,786	368,686	297,051
Gulf Coast	2,794	2,402	3,295	2,994	2,699	3,877	1,891	2,315	2,200	2,758	2,749	2,735	32,709	34,103
Rocky Mountain*	2,689	2,517	2,778	2,752	2,811	2,758	2,791	2,403	3,256	3,679	2,972	2,716	34,122	29,658
California	19,543	19,304	17,867	19,035	18,511	18,295	18,582	18,305	16,227	20,181	17,201	18,231	221,282	266,089
Deliveries and exports	57,017	55,573	58,392	55,415	57,136	55,512	57,151	56,486	57,288	61,503	59,622	63,696	694,801	649,378
Exports of domestic crude oil	1,480	1,651	1,450	1,520	1,823	1,517	1,369	1,205	1,815	1,376	1,436	963	17,605	17,061
Deliveries	55,537	53,922	56,942	53,895	55,313	53,995	55,782	55,281	55,473	60,127	58,196	62,733	677,196	632,317
Foreign petroleum	6,442	6,520	8,475	7,168	7,411	6,807	6,408	5,850	5,608	5,055	6,447	5,865	78,056	81,999
Deliveries of domestic and foreign petroleum in the U. S. and territories	61,979	60,442	65,417	61,063	62,724	60,802	62,190	61,131	61,081	65,182	64,643	68,598	755,252	714,316

*Includes Alaska.

INDICATED DOMESTIC CONSUMPTION OF CRUDE PETROLEUM*
(Thousands of barrels of 42 U. S. gallons.)

	January	February	March	April	May	June	July	August	September	October	November	December	1924	1923
Crude oil run to refinery stills	51,013	49,907	52,699	53,114	54,725	52,436	52,876	54,642	53,617	55,779	55,029	57,881	643,719	581,238
Indicated consumption of crude petroleum for fuel (including losses)	10,132	7,454	11,142	6,688	7,509	8,367	9,844	5,822	6,551	10,633	9,529	10,126	103,797	133,624
Total	61,145	57,361	63,841	59,802	62,234	60,803	62,720	60,465	60,168	66,412	64,558	68,007	747,516	714,862

*Indicated domestic consumption=production plus imports plus total stocks beginning of period minus exports and stocks end of period.

WELLS DRILLED FOR OIL AND GAS IN THE UNITED STATES, BY MONTHS, 1924*

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Total Completions 1924	Total Completions 1923	Percentage— 1924	Percentage— 1923
Oil	774	904	1,088	1,429	1,657	1,531	1,593	1,389	1,126	1,082	1,007	1,007	14,587	16,206	66.6	66.3
Gas	202	161	192	197	185	181	152	191	170	182	231	213	2,257	2,349	10.3	9.6
Dry	287	357	375	434	542	457	492	441	397	374	423	465	5,044	5,883	23.1	24.1
Total	1,263	1,422	1,655	2,060	2,384	2,169	2,237	2,021	1,693	1,638	1,661	1,685	21,888	24,438	100.0	100.0

*States east of California compiled from The Oil and Gas Journal; California (gas wells and dry holes not reported) from American Petroleum Institute.

PRODUCING OIL WELLS IN THE UNITED STATES, DECEMBER 31, 1923 AND 1924
(Based on reports of companies that operate gathering lines.)

State—	December 31, 1923 Number of Wells	December 31, 1923 Average Product'n per Well per Day	December 31, 1924 Number of Wells	December 31, 1924 Average Product'n per Well per Day
Arkansas	1,970	46.0	3,050	33.5
California	9,396	74.9	11,320	53.6
Colorado	60	3.5	70	25.8
Illinois	16,674	1.3	16,400	1.2
Indiana:				
Southwestern	1,050	1.8	1,020	1.5
Northeastern	1,250	.5	1,120	.5
Total Indiana	2,300	1.1	2,140	1.0
Kansas	17,750	4.2	18,000	4.0
Kentucky	11,700	1.7	12,450	1.5
Louisiana:				
Gulf Coast	130	48.1	200	37.4
Rest of State	3,500	14.6	3,350	13.7
Total Louisiana	3,630	15.8	3,550	15.0
Montana	280	20.5	380	18.9
New York	14,640	.3	15,000	.3
Ohio:				
Central and Eastern	20,650	.6	20,900	.6
Northwestern	18,900	.3	18,000	.3
Total Ohio	39,550	.5	38,900	.5
Oklahoma	57,500	6.9	60,500	8.1
Pennsylvania	74,000	.3	74,350	.3
Texas:				
Gulf Coast	2,270	32.1	2,220	28.2
Rest of State	16,980	17.4	18,130	15.9
Total Texas	18,250	19.3	20,350	17.2
West Virginia	20,100	.8	20,000	.8
Wyoming	2,300	59.7	2,570	26.9
Other*	.....	....	70	....
Total	290,100	6.6	299,100	6.2

*Alaska, New Mexico, Tennessee and Utah.

WORLD'S PRODUCTION OF PETROLEUM IN 1924 AND TOTAL PRODUCTION, 1857-1924*

	1924 Barrels of 42 U. S. Gallons	1924 Metric Tons	1924 Cubic Meters	1924 Percentage of Total by Volume	1857-1924 Barrels of 42 U. S. Gallons	1857-1924 Metric Tons	1857-1924 Cubic Meters	1857-1924 Percentage of Total by Volume
United States	713,940,000	98,024,000	113,504,000	70.5	7,905,929,000	1,083,219,000	1,256,905,000	63.7
Mexico	139,497,000	21,340,000	22,178,000	13.8	1,201,281,000	180,380,000	190,983,000	9.7
Russia	45,312,000	6,295,000	7,204,000	4.5	2,053,146,000	272,614,000	326,413,000	16.6
Persia	32,373,000	4,313,000	5,147,000	3.2	150,619,000	20,076,000	23,946,000	1.2
Dutch East Indies	20,473,000	2,926,000	3,255,000	2.0	294,030,000	40,256,000	46,746,000	2.4
Rumania	13,303,000	1,851,000	2,115,000	1.3	207,842,000	29,153,000	33,043,000	1.7
Venezuela	8,754,000	1,332,000	1,392,000	.9	17,924,000	2,727,000	2,850,000	.1
India	8,150,000	1,144,000	1,296,000	.8	157,282,000	21,147,000	25,005,000	1.3
Peru	7,812,000	1,029,000	1,242,000	.8	52,321,000	6,939,000	8,318,000	.4
Poland	5,657,000	771,000	899,200	.5	190,633,000	26,342,000	30,307,000	1.5
Argentina	4,669,000	679,000	742,000	.4	20,421,000	2,978,000	3,247,000	
British Borneo (Sarawak)	4,163,000	599,000	662,000	.4	16,505,000	2,375,000	2,624,000	
Trinidad	4,057,000	564,000	645,000	.4	23,264,000	3,235,000	3,699,000	
Japan and Taiwan (Formosa)	1,959,000	271,000	312,000	.2	49,640,000	6,894,000	7,892,000	
Egypt	1,122,000	163,000	178,000		11,758,000	1,694,000	1,869,000	
Colombia	445,000	64,000	71,000		1,192,000	171,000	190,000	
France	426,000	61,000	68,000		2,767,000	391,000	440,000	
Germany	406,000	59,000	65,000		16,739,000	2,263,000	2,661,000	1.4
Canada	164,000	23,000	26,000	.3	25,564,000	3,411,000	4,064,000	
Czechoslovakia	75,000	11,000	12,000		480,000	71,000	76,000	
Italy	45,000	5,000	7,000		1,186,000	167,000	189,000	
Algeria	12,000				71,000	10,000	11,000	
Barbados	10,000				†.....			
Cuba	4,000	18,000	20,000		†.....	110,000	126,000	
England	2,000				12,000			
Other	97,000				789,000			
Total	1,012,927,000	141,542,000	161,040,000	100.0	12,401,389,000	1,706,623,000	1,971,604,000	100.0

*Compiled by L. M. Jones. †Included under "other."

VALUE OF CRUDE PETROLEUM AT THE WELLS, 1923-1924, BY STATES

State—	1923 Value at the Wells Total	1923 Av. per Bbl.	1924 Value at the Wells Total	1924 Av. per Bbl.
Arkansas	$ 25,400,000	$0.69	$ 43,130,000	$0.94
California	242,731,000	.92	274,653,000	1.20
Colorado	102,000	1.19	490,000	1.10
Illinois	16,250,000	1.87	14,220,000	1.76
Indiana:				
Southwestern	1,440,000	1.82	1,200,000	1.80
Northeastern	460,000	1.84	520,000	1.92
Total Indiana	1,900,000	1.82	1,720,000	1.84
Kansas	45,970,000	1.63	44,400,000	1.54
Kentucky	15,900,000	1.97	14,592,000	1.97
Louisiana:				
Gulf Coast	2,340,000	1.36	4,050,000	1.63
Rest of State	33,190,000	1.48	26,290,000	1.41
Total Louisiana	36,530,000	1.47	30,340,000	1.44
Montana	4,080,000	1.47	3,754,000	1.33
New Mexico	*.....	*...	127,000	1.30
New York	4,140,000	3.31	5,245,000	3.64
Ohio:				
Central and Eastern	12,690,000	2.57	13,135,000	2.74
Northwestern	4,360,000	2.02	4,030,000	2.00
Total Ohio	17,050,000	2.41	17,165,000	2.52
Oklahoma	279,700,600	1.74	272,450,000	1.57
Pennsylvania	25,320,000	3.33	27,025,000	3.61
Tennessee	14,000	1.75	18,000	1.80
Texas:				
Gulf Coast	42,780,000	1.39	40,570,000	1.56
Rest of State	150,800,000	1.50	163,300,000	1.51
Total Texas	193,580,000	1.48	203,870,000	1.52
West Virginia	20,822,000	3.37	20,840,000	3.52
Wyoming	48,900,000	1.09	48,500,000	1.23
Other	41,000	2.28	44,000	3.38
Total	$978,430,000	$1.34	$1,022,683,000	$1.43

*Included under "other."

CONDENSED SUMMARY OF STATISTICS OF CRUDE PETROLEUM, 1923-1924
(Thousands of barrels of 42 U. S. gallons.)

	1923	1924
Production	732,407	713,940
Imports	82,015	77,775
Total	814,422	791,715
Indicated domestic consumption	714,862	747,516
Exports	17,385	17,973
Added to stocks*	82,175	26,226
Total	814,422	791,715

*Total stocks—producers', pipe line, tank farm and refinery stocks of domestic and imported crude petroleum.

SOUTH DAKOTA LICENSE ON STATIONS ILLEGAL

CHICAGO, Sept. 12.—The Supreme Court of South Dakota has granted an injunction overruling that part of the law passed at the spring session of the legislature which imposed a fee of $5 per filling station. The plea for the injunction was filed by the Standard Oil Co. (Indiana), which has won a partial victory, as the suit was directed more at the increased gasoline tax than at the license fee on stations. The particular objection raised by the Standard's general counsel, Judge Martin, to the licensing fee was that the law as passed and signed by the Governor imposed the license on such dealers as sold gasoline which they imported into the State, while dealers in gasoline bought within the State paid no license fee. The court decided that anyone who operates a filling station or garage is as much a dealer under the law as the oil man who buys his gasoline outside of the State and imports it. The decision states, "It is unfair and discriminatory to require one dealer to pay an occupation tax while another in competition with him, doing identically the same business except the person from whom he buys his product at wholesale, is not required to do so."

The law was stated to be unconstitutional in that it denied dealers who are importers equal protection under the law, and also as in violation of Section 18 of Article 6 of the State constitution, which prohibits the giving to any citizen of special immunities or privileges.

Other objections to the two laws which increased the tax on gasoline and imposed the license were that the title to the bill did not indicate truly the nature of the act, that the bill was an amendment of an act passed in 1923, and as such did not provide for the enforcement of the act, and that practically there was no law placing a license on stations in effect on July 1, 1925, when the act was to be in effect. That the law was both a police regulation and an act to raise revenue, which was not constitutional; that it placed an undue burden on interstate traffic, and objection was also raised to the clause which permitted State officials to declare a license void for alleged violation of the law, thus depriving a citizen of the State of his property without due process of law.

The court gave the State ten days from September 1, in which to give satisfactory reasons why the injunction granted should not be made permanent. About $3,000 has been collected in license fees, which will be returned when the injunction has been made permanent. A further decision is expected on points regarding the increase in gasoline tax.

PANAMA SHIPMENTS SHOW OIL VARIATION

The cargo movement through the Panama Canal during the fiscal year 1924-25 dropped approximately 3,000,000 tons from the high total of the preceding year. As this is more than covered by the 4,000,000 ton reduction in intercoastal traffic, of which the lessened California oil production accounts for 3,865,000 tons it may be assumed, says the United States Department of Commerce, that general world cargo increased its traffic through the canal during the year by approximately 1,000,000 tons.

Tanker traffic through the canal, of which 80 per cent is estimated as intercoastal, approximates 55 per cent of the total intercoastal movement, including both eastbound and westbound traffic. In the eastbound trade, where tanker tonnage predominates, practically 65 per cent of the total traffic movement is carried in tankers. Traffic through the canal during the last few years has been affected by tanker activity more than by any other single cause.

West coast oil production during the last four fiscal years has contributed to this activity in the following amounts: 12,000,000 bbls. in 1921-22; 1,900,000,000 bbls. in 1922-1923; 264,000,000 bbls. in 1923-24 and 222,000,000 bbls. in 1924-25.

Only in the fiscal year 1924-25 has a decrease occurred in west coast oil production, but its effect in reducing the total traffic moving through the canal is apparent from the following table of this tonnage carried by tankers during the last four fiscal years:

Cargo carried by tankers through the Panama Canal, January 1, 1922, to June 30, 1925.

Fiscal year—	Atlantic to Pacific No. of Vessels	Atlantic to Pacific Long Tons of Cargo	Pacific to Atlantic No. of Vessels	Pacific to Atlantic Long Tons of Cargo	Total No. of Vessels	Total Long Tons of Cargo
1921-22 (last 6 months)	*...	373,227	*...	188,281	*...	561,508
1922-23	*...	477,860	*...	4,330,723	*...	4,808,583
1923-24	835	464,785	869	9,706,818	1,704	10,161,603
1924-25	535	†296,764	544	6,000,106	1,079	6,296,870
Total	1,370	1,602,636	1,413	20,225,928	2,783	21,828,564

*Figures not available. †Figures for March not available.

TO SELL TEXAS LEASES

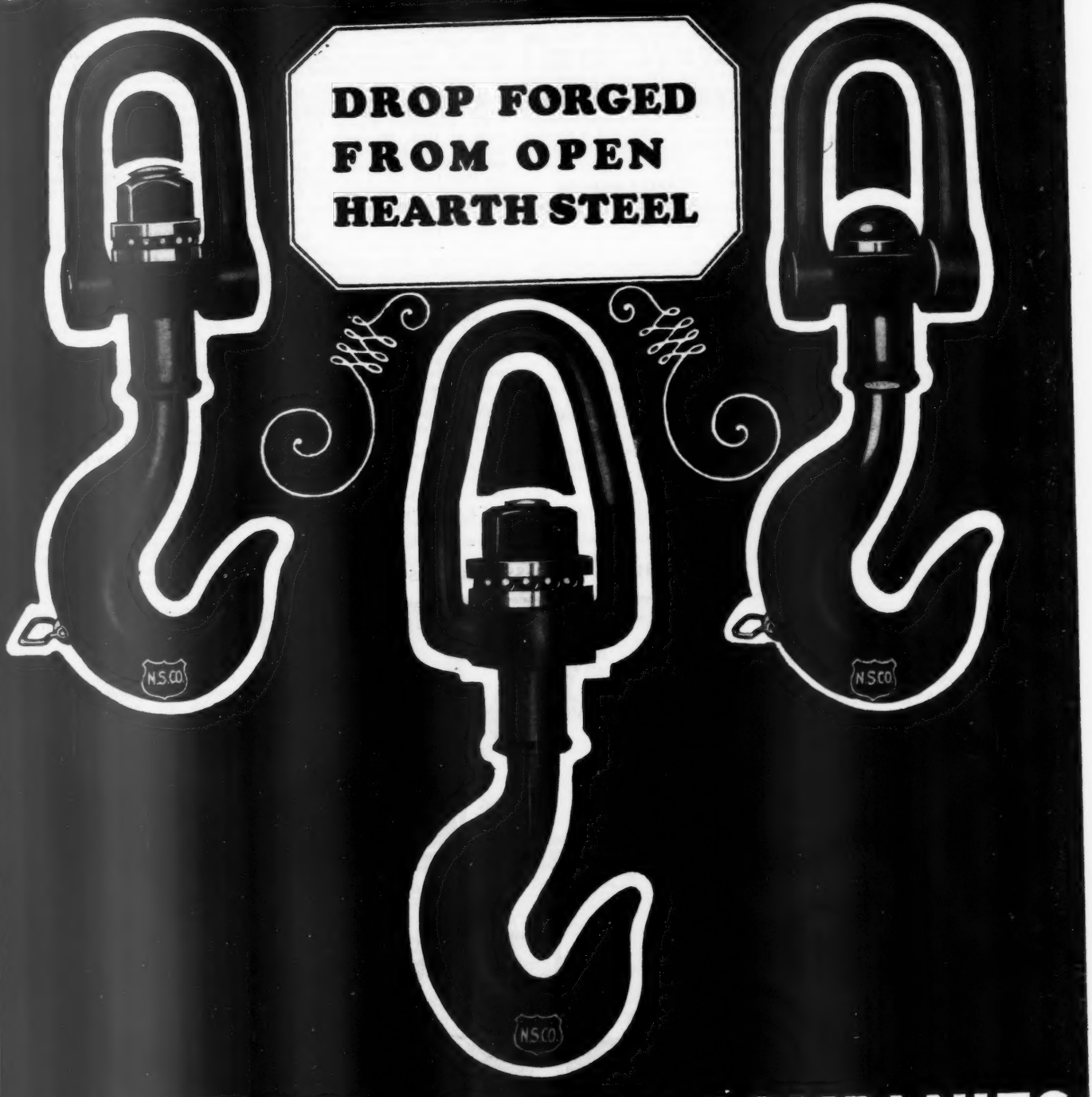
OKLAHOMA CITY, Okla., Sept. 12.—The Commerce Trust Co. and B. C. Howard of Kansas City, trustees, have announced that they will sell, October 6, oil and gas leases to 1,360 acres in Hutchinson County and 360 acres in Potter County, Texas, belonging to the Continental Asphalt & Petroleum Co., of Oklahoma City, which is now in the hands of a receiver. The sale follows an execution order made to collect principal and interest on a bond issue of $2,000,000 executed by the Continental in August, 1921. Interest is in default and the bondholders have declared the entire amount of the issue due. The date of payment called for in the face of the bonds is August 1, 1926.

DEATH OF W. B. STEWART

W. B. Stewart, prominent oil operator of Oklahoma, Kansas, Texas and California, formerly a resident of the Pennsylvania oil fields, died suddenly at his summer home at Charlevoix, Mich. He was at one time a resident of Titusville and Warren. He left the Pennsylvania oil fields about 20 years ago and made his home in Muncie, Ind.

NATIONAL STANDARD HOOKS

DROP FORGED FROM OPEN HEARTH STEEL



THE NATIONAL SUPPLY COMPANIES

NATURAL GAS DEVELOPMENTS

CUT GAS CONSUMPTION BY CARBON INDUSTRY

MONROE, La., Sept. 12.—Another step in the reduction in Monroe gas field consumption was passed when the Department of Conservation placed in effect its new apportionment, which involves a cut of approximately 9,000,000 feet daily in use of gas for carbon burning. The net reduction for the larger companies is 10,238,000 feet daily, being offset by slight increases in consumption granted to several smaller concerns.

Under the new regulation the field consumption will total around 2,000,000,000 feet daily, if the regulation is rigidly enforced. In February, before former Commissioner W. J. Everett placed his initial cut in force, consumption was approaching, and in a few instances, exceeding 3,000,000,000 feet.

Present consumption regulation has been placed on a more definite basis, allotments now being used by the various companies. Before this system was started and under the legislative act of 1924, the companies were permitted to draw a certain percentage from their wells, restrained only by the basic back pressure measurement. This provided large leeway for the larger companies with many wells, who were enabled to keep production high without violating the regulations.

Carbon production is being maintained on a normal level without the uncertainty which featured the market last year.

ENJOIN GAS COMPANY FROM STOPPING SUPPLY

MT. STERLING, Ky., Sept. 12.—City Attorney Henry Watson and Judge R. H. Winn., special counsel, filed suit in Montgomery Circuit Court asking that the Central Kentucky Natural Gas Co. be enjoined from turning off the gas supply in Mt. Sterling when its franchise expires.

Circuit Clerk Hunt granted a restraining order which was served on the company officials. The company was seeking to secure a new franchise increasing the rate from 40 to 60 cents, which the city council refused to grant, and notices were published in the papers by the company that the gas supply would be cut off. The plaintiffs were Montgomery County, Mary Chiles Hospital and many citizens.

UNITED OPPOSITION TO INCREASED RATES

LOS ANGELES, Cal., Sept. 12.—Unified opposition to the request for increased gas rates by the Los Angeles Gas & Electric Corp., the Southern California Gas Co. and the Midway Gas Co., will be made at the hearing on the application to come before the Railroad Commission on September 28.

A local committee under the direction of City Attorney Jess E. Stephens, will make investigations of the affairs of the various petitioning utilities concerns, and a movement on foot in Pasadena proposes joint opposition to the increase.

Other cities expected to enlist in the movement to oppose the applications are Beverly Hills, Alhambra, San Gabriel, San Marino, Monterey Park, Culver City, Inglewood, Huntington Park, Vernon, Maywood, Hawthorne, South Gate and Watts.

TEXAS GAS MERGER

HOUSTON, Tex., Sept. 12.—The Community Natural Gas Co., of Dallas, Tex., has taken over the properties of the Farmers Gas Co. in Limestone County. Improvements in the gas service at Mexia, Wortham and Richard are to be made. The Community Natural Gas Co. now supplies 35 towns in east and northwest Texas.

OHIO'S CADDO GASSER IS DEEPEST IN FIELD

SHREVEPORT, La., Sept. 12.—Since the completion of a gigantic gasser by the Ohio Oil Co. in the Caddo Field, the fraternity is wondering what will be done with the big producer. The well was drilled on the Smith lease in Section 12-21-15, in the Pipe Island district, and came in at a depth of 3,690 feet, some 60 feet deeper than any previous production in North Louisiana, and extending the deep gas field about 1½ miles northeast.

In December, last year, the Dixie Oil Co. completed a well in the deep sand in this territory, on the Robertshaw lease in Section 14-21-15. This well is supplying gas under its own pressure to Little Rock, Pine Bluff and intermediate towns in Arkansas, and still has a greater pressure than the pipes will stand and is blowing from 12,000,000 to 15,000,000 feet of gas into the air.

GAS COMPANIES MERGED

The Oklahoma Corporation Commission has granted the application of Western Oklahoma Gas & Fuel Co. for permission to acquire all of the physical property of the Southwestern Oklahoma Gas & Fuel Co. The latter company transported gas from the main pipe line of the Oklahoma Natural Gas Co. to the city gates of Duncan and Marlow, where it was distributed by the Western Oklahoma Gas & Fuel Co. Both companies were under common ownership. The Western Oklahoma Gas & Fuel Co. is one of the Empire companies.

TRI-COUNTY CO. CHARTER

OKLAHOMA CITY, Okla., Sept. 12.—One of the largest natural gas concerns incorporated during the year was the Tri-County Gas Co. of Tulsa, capital stock, $300,000, incorporators, D. H. Collins, O. Robe and T. G. Logan, all of Tulsa.

SULPHUR COMPANIES CHANGE TO GAS FUEL

HOUSTON, Tex., Sept. 12.—C. M. Chapman, of New York, a consulting combustion engineer, has been inspecting the plant of the Freeport Sulphur Co at Freeport, Brazoria County, with a view to changing to natural gas from fuel oil. The company is now using Panuco (Mexican) heavy, which is topped at a plant owned by the company at Freeport. Approximately 3,000 bbls. per day are used to generate steam to melt the sulphur and pump it from the wells in a fluid state. The sulphur company operates on deposits at Bryan Heights and Hoskins Mound. The sulphur is melted by means of superheated water pumped into the wells. The wells are drilled with a rotary rig, the same as oil wells.

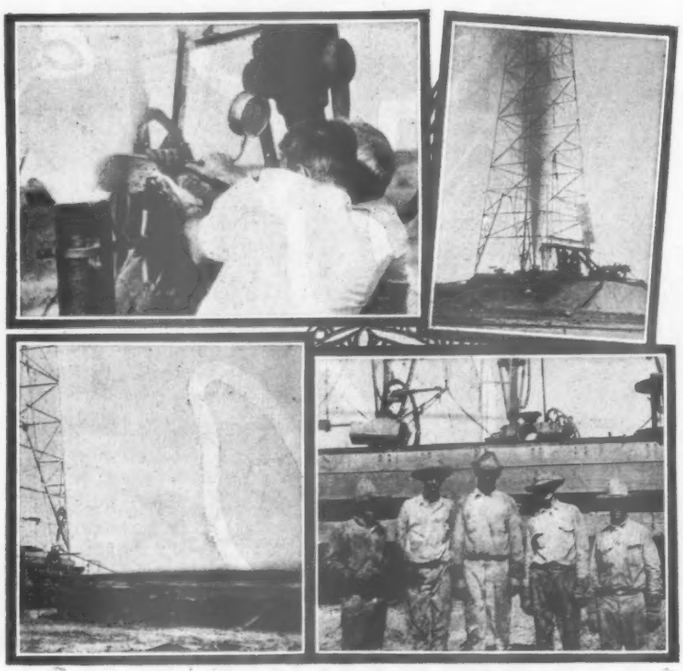
The Texas-Gulf Sulphur Co., with a plant at Gulf, Matagorda County, is changing over from fuel oil to natural gas, which will be furnished by the Houston Pipe Line Co., a subsidiary of the Houston Oil Co., from wells in Live Oak County and in Jackson County.

The Union Sulphur Co., operating at Sulphur, Calcasieu Parish, Louisiana, and Big Creek, Fort Bend County, Texas, uses fuel oil. These three sulphur companies are among the largest users of fuel oil in the South.

NOCONA GASSER BURNING

NOCONA, Tex., Sept. 12.—The Texas Co.'s big gasser, on the W. W. Jones tract, 8 miles north of here, which blew in at 860 feet early Monday night caught fire soon after. The property loss, including derrick, rig tools and material, which were totally destroyed by the fire, will probably reach $15,000 or $20,000. The intense heat melted a part of the machinery and no one can advance nearer than 100 feet. The flame shoots up 50 and 75 feet. The company will mount a battery of about 20 boilers to fight the fire with steam.

WHEN A BIG GASSER BLOWS IN



Views showing the Houston Oil Co.'s No. 1 Rook, a 60,000,000-foot gas well in Refugio County, Texas. Upper left, attaching a pressure gauge. Upper right shows the well flowing open for 10 minutes to register capacity. Lower left, gas blowing through 1¼-inch choker. Lower right, drilling crew. The roar of the gas while the well was open could be heard for 10 miles

MIDWAY GAS COMPANY ENTERS VENTURA FIELD

LOS ANGELES, Cal., Sept. 12.—The Midway Gas Co. is preparing to enter the Ventura Avenue Field, where the Southern Counties Gas Co. is at present handling the gas production.

The Midway Gas Co., unsuccessful in its effort to get a right-of-way on the avenue, because of the network of oil lines, gas lines and water lines already laid there, is looking for a route between the avenue and the river, and when this detail is out of the way will begin to make the installations necessary to put gas through to Los Angeles.

The Midway's plans, so far as can be determined, include the construction of a 30-miles pipe line from Ventura to Saugus, where it will connect with the Midway line from Kern County to Los Angeles. Necessary compressor plants and gathering lines in the Ventura Avenue Field also will be constructed. The entire project is likely to cost about $1,000,000.

The gas output of the Ventura Field is estimated at between 50,000,000 and 60,000,000 feet a day, of which only about one-third is being utilized. The Southern California Gas Co., which put its line to Los Angeles into commission about four weeks ago, is handling from 15,000,000 to 20,000,000 feet of gas a day, mostly from the wells of the Associated Oil Co., which flow about 30,000,000 feet a day. Very little of the gas produced by the Shell Co. and the General Petroleum Corp. is being utilized, and the Midway Gas Co. expects to take care of this deficiency.

OKLAHOMA NATURAL CO. RATE TO HIGH COURT

F. E. Riddle, attorney for a number of gas consumers in Tulsa, is preparing the next move in the fight to compel the Oklahoma Natural Gas Co. to furnish gas under the original charter by which it is claimed the company cannot charge over 25 cents per 1,000 feet. The case is to be argued in the United States Supreme Court October 5 on two motions. Mr. Riddle has a motion to advance the case on the docket while attorneys for the gas company have filed a motion to dismiss the appeal.

The case began last fall when Mr. Riddle filed a petition asking a Federal court order compelling the company to furnish gas under the provision of the original franchise and that $3,000,000 collected under increased rates, be refunded to the consumers. He lost his fight in the Federal District Court.

The original franchise was made prior to Statehood but was perpetual and provided that the original incorporators and all under them should furnish gas to the citizens of Tulsa at the rate of 25 cents per 1,000 feet. The cost is now 62 cents.

Some years after Oklahoma became a State the State Corporation Commission was created and by legislation action at the session of 1913 companies furnishing natural gas were placed under the jurisdiction of the State commission. The Oklahoma Natural immediately got an order from the State commission increasing the rate. Another order has been issued since then again increasing the rate.

UTILITY COURSE AT UNIVERSITY

Conference is being held between officers of the Oklahoma Utilities Association and Dr. W. B. Bizzell, president of the University of Oklahoma, to consider plants for establishing public utility study courses at the university. R. C. Sharp, Tulsa, vice president of the Oklahoma Natural Gas Co. and president of the Oklahoma Utilities Association, and E. F. McKay, Oklahoma City, manager of the association, represent the association.

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EXTRAVAGANCE and waste have always been associated with the oil industry. They are a natural result of undertaking work without definite knowledge of conditions to be encountered or the possibility of ultimate success. Haphazard methods in any line of endeavor add to cost and increase failures. Drilling for oil is no different from any other business enterprise; it requires sound judgment, and sound judgment is based on facts, not supposition. This company supplies the facts that insure economy and ward off failure; it is doing this for others to their satisfaction and profit. Let us tell you how we can do it for you also.

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MEN KNOWN IN OILDOM

J. E. Redburn

J. E. Redburn, who heads the Mid-Northern Oil Company operations in Texas, was born in Springfield, Illinois, in 1894 and moved with his family to El Dorado, Kansas, at an early age. He was educated at the El Dorado high school and the State Agricultural School at Manhattan, Kansas, at which institution he served as assistant professor of science. He took his geological course at the University of Wyoming.

He entered the employ of the Roxana Petroleum Corporation in 1919 and in 1920 he became a member of the geological department of the Midwest Refining Company. The Midwest loaned him to its subsidiary, the Mid-Northern Company. During his association with this company he has spent much time in exploratory work in southeastern Colorado and New Mexico. He is married and has four children.

PERSONAL PARAGRAPHS

George Peat has returned to Petrolia, Ont., from the Venezuela oil field.

* * *

Mr. and Mrs. Frank Lawson of Petrolia, Ont., left recently via New York for the Egyptian fields.

* * *

John R. McGinley, head of the Marland Oil Company in Tulsa, is in Ponca City on a business trip.

* * *

M. J. King, independent operator of Okmulgee, Okla., is back from a vacation spent in Minnesota.

* * *

Fay Weimer, geologist of Okmulgee, left recently for a tour of western Texas, New Mexico and sections of Mexico.

* * *

C. E. Girten, president of the Girten Belting and Supply Company of Houston, is back at his office, following an enforced idleness due to a minor operation.

* * *

E. E. Kirkpatrick, head of the T. B. Slick land department, is back in Tulsa after a trip to Texas where he was called suddenly by the death of a friend.

* * *

Phillip Korn of the payroll department of the Midwest Refining Company, in the Casper office, left for a vacation trip to his former home in Oil City, Pa.

* * *

M. R. Singleton, vice president and general manager of the Paragon Refining Company, has moved his family from the former home at Cincinnati to Toledo, Ohio. The family spent the summer season in a cottage at Lakeside, below Port Clinton, Ohio.

C. F. Urschel, head of the T. B. Slick office in Oklahoma City, was in Tulsa for a day en route to Oklahoma City after a summer vacation in Clarion, Pa.

* * *

William N. Finnegan, Jr., chief statistician of the Humble Oil & Refining Company, Houston, has returned from a vacation trip spent along the Gulf with his family.

* * *

Dalton L. Jobe, independent operator of Okmulgee, Okla., has left with Mrs. Jobe for a vacation in Florida. He is one of the few who claim to have no interest in Florida real estate.

* * *

R. B. Werey, who has been employed in the engineering construction department of the Empire Companies, has accepted a position as assistant refinery engineer with the Bureau of Mines.

* * *

W. H. Fitzgerald of Columbus, Ohio, and A. R. Marshall of Lexington, Ky., attended a meeting of the board of directors of the Petroleum Exploration at the general offices at Sistersville, W. Va.

* * *

F. P. Geyer, president of the Marland Oil Company of Texas, who is universally known as "Spot," is spending a week in Oklahoma visiting Tulsa, and the main offices of the Marland interests in Ponca City.

* * *

Charles I. O'Neill, secretary of the Okmulgee District Oil and Gas Association, is on his way home after a month's vacation spent visiting eastern cities. He spent some time with the members of his family in Rochester, N. Y.

* * *

Charles J. Deegan, who has been employed as assistant valuation geologist of the Empire Companies for the past three years, has accepted a position in the department of economics with the Marland Oil Company at Ponca City.

* * *

A. M. Hill, who has been connected with the oil production department of the Empire Gas and Fuel Company for the past few years, has resigned to accept a position with the diamond drilling department of the Mid-Continent Petroleum Company.

* * *

R. S. Withers of Jackson, Miss., has returned from a visit to several wells drilling in various sections of that State. He is enthused with the outlook of Mississippi, and states that it will soon be listed among the producing States of the country.

* * *

O. L. Alcock, who is in charge of the North Central Texas division of the Sinclair Oil and Gas Company, with headquarters in Wichita Falls, is in Tulsa visiting relatives and business friends. Mr. Alcock has been located in Wichita Falls for several months.

* * *

H. P. Neubardt, in charge of the Magoffin County, Kentucky, property of the Petroleum Exploration and the Wiser Oil Company, has been transferred to Vernon Texas, where he will look after the wells being drilled by the Wiser Company in Willbarger County.

* * *

Tracy N. Shaw, head of the industrial relations department of the Midwest Refining Company, has been transferred to Midwest, in the Salt Creek Field. The Midwesterners and many others of Casper regret to see Tracy move from Casper, but wish him success in his new location.

* * *

E. B. Resser, president of the Barnsdall Oil Company, has returned to Tulsa from New York. R. F. MacArthur, vice president and general manager of the Barnsdall Oil Company, is in Tulsa from a two weeks' combined business and pleasure trip to Houston and Corsicana, Texas.

* * *

John G. Phillips, of the Southwest Supply Company, and John G. Burkett, both of Tulsa, Okla., have been looking over Southwest Texas. Mr. Phillips opened branch offices for his company at Fort Worth and Houston. They visited San Antonio, where they called on Col. William E. Hawley, formerly commissioner of public affairs of Tulsa, and now president of the San Antonio Petroleum Board of Trade.

E. A. Durham, of Sistersville, W. Va., and all other places where oil is found, visited the Big Horn Basin country in Wyoming the past week where he is interested in the gas development and the Wyoming Gas Company which furnishes gas to many cities in the Basin. Mr. Durham is also a prominent official of the Western Exploration Company in the Sunburst Field in Montana.

* * *

H. V. DeRousse of Pittsburgh, manager of the tool sales department of the Oil Well Supply Co., is spending a few days in the Casper offices of the company and visiting a number of fields in Wyoming. He is accompanied by C. E. Rathburn, who is at the head of the tool salesmen in Colorado.

* * *

Talbot C. Wildman, for five years a scout for the Amerada Petroleum Corporation, has resigned and plans to enter the oil business as an individual. He is taking a vacation in Connecticut, his former home. He has been replaced as scout in the Okmulgee district by Ed George, formerly instrument man for Jesse Vernon, district geologist for the Amerada in that territory.

* * *

C. E. Sykes, the Ardmore oil man who in recent years has established an international reputation as a sportsman in the Northwest, left recently with his wife and son on a third hunting expedition in Alaska. They sailed from Seattle August 29 and will return home the latter part of October. Sykes, on previous expeditions, has brought back fine exhibits of skins of moose, caribou, mountain sheep and bear.

* * *

E. L. Estabrook, chief petroleum engineer of the Midwest Refining Company, has been transferred from Casper, Wyo., to New York, where he will handle to petroleum engineering work of the Pan-American Oil Company, the new subsidiary of the Standard of Indiana, that is to develop oil fields in Mexico and South America. Mr. Estabrook has won many friends in Casper since coming here as petroleum engineer for the Midwest, and they regret his departure from the Rocky Mountain region.

* * *

Roderick D. Burnham, manager of lands for the Union Oil Company of California, has sailed from New York on a trip of inspection of the company's lands in Colombia, South America. During his sojourn south of the equator, Mr. Burnham will look over some of the recent petroleum developments in other South American countries. Burnham is the son of Major Fred Burnham, famous American scout and hero of the Boer and other South African wars.

* * *

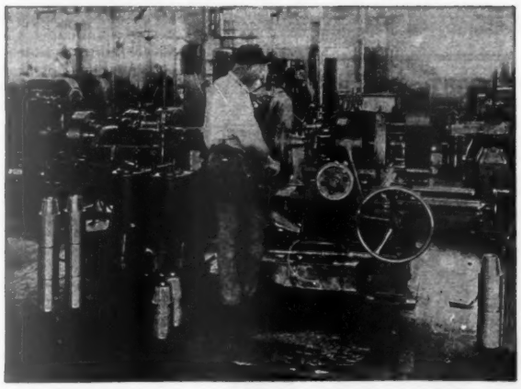
Berry V. Stoll of the Stoll Oil Refining Company, with headquarters at Louisville, Ky., has returned after spending several days in Tennessee, where his company is building a pipe line. James G. Crawford, who has been pipe line superintendent for the Stoll Company in the eastern division of Kentucky, is in charge of putting in the pipe line at Tinsley's Bottom. A. J. Dawley, formerly of Bowling Green, Ky., is assisting Mr. Crawford. Robert Whitney, assistant refining superintendent of the Stoll Company, is also assisting in directing the building of the line.

* * *

A. F. Denniston, of the land department of the Magnolia Petroleum Company, Houston, celebrated his 76th birthday September 1. "Dad," as he is known in the Coastal country, received congratulations from many friends and a number of useful presents from fellow employes of the company. He was born in Mercer County, Pennsylvania, going to Petroleum Centre and Pithole as a boy. He has been identified with the oil industry ever since, following the developments into West Virginia and then west. He came to Texas during the Spindletop boom as manager for the National Supply Company. The sales record made by Mr. Denniston at Spindletop still stands. He joined the organization of the old Corsicana Petroleum Company when that company was organized and opened the Electra Field, the most consistent producing district in Texas. When the Corsicana Petroleum Company became the Magnolia Petroleum Mr. Denniston was placed in charge of the land and lease department in the Coastal regions. He is active and in keen touch with developments not only in south Texas, but in other fields as well.

The way we Produce a Better Tool Joint 3rd

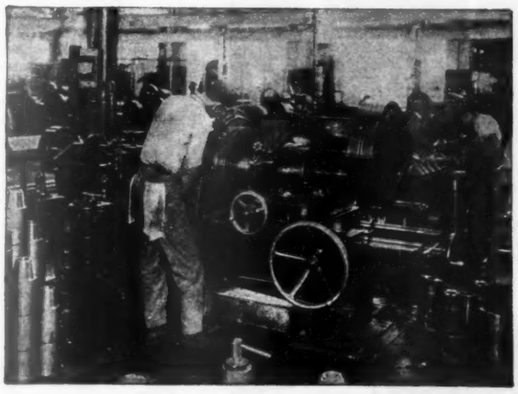
Use Great Care in Cutting Threads



Thread Milling Pipe End of Tool Joint

Good tool joints are not easy to make. Close fits are required to make threads properly and to make joints water tight. To insure the required degree of accuracy special threading machines are used in the manufacture of

HUGHES TOOL JOINTS



Thread Milling Tool Joint Pin

Formed tools made by precision methods reproduce their dimensions in this work.

The photographs show two of the many Hughes Special Thread Millers.

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OKLAHOMA CITY, OKLA.

MAIN OFFICE AND PLANT
HOUSTON, TEXAS

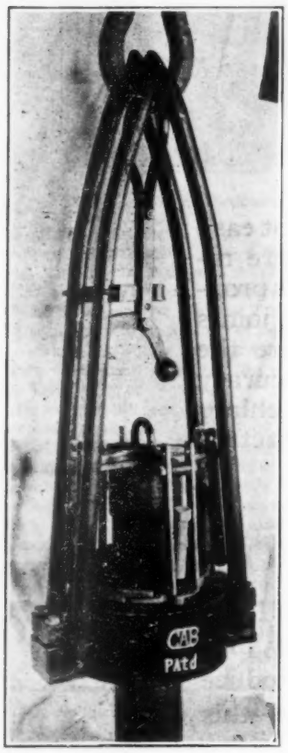
Export Office
NEW YORK CITY

EQUIPMENT AND SUPPLIES

NEW CASING ELEVATOR OF SPECIAL DESIGN

The Charles A. Butler Manufacturing Co., of Okmulgee, Okla., has placed upon the market a casing elevator designed by Charles A. Butler, whose life has been devoted to the oil business and its tributary branches. Mr. Butler has many oil field appliances and patents to his credit, and for years was a drilling contractor in the Mid-Continent Field, having had a varied practical experience and served his time "under the beam."

The new elevator was designed primarily to handle long strings of casing. It



is described as strong enough to pull any string of casing in two, and quick in action. It is a ring and slip affair and the slips are interlocking, making it imperative that they take an even hold on the pipe. When the slips are raised and released from the pipe, guide pins upon which the slips are mounted hold them back from the pipe at sufficient distance to permit the pipe couplings to clear the slips as they pass over them, either on or off.

The slips are suspended from a bracket that rests on the top of the casing coupling as the picture shows. To remove from the casing the elevator is lowered until the weighted hook reaches the level of the ring in the bracket, when it may be hooked into the ring and the elevator raised off the casing. To take hold of the casing the elevator is let down over the top of the coupling, until the bracket strikes the top of the coupling when the weighted hook will tip out of the ring and let the slips down so that when the elevator is raised the bowl will come up over the slips closing them into contact with the pipe, and taking a hold that is reported absolutely safe to carry any string of casing. The slips, it is said, never stick and will let go of the pipe quickly. The elevator is unusually quick in action, and takes hold of the pipe automatically. To remove it, all that is necessary is to place the weighted hook into the ring on the top of the bracket.

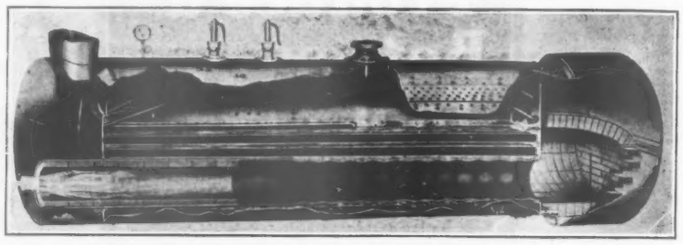
ELECTRICAL LEVEL IS NEW INSTRUMENT

The Republic Flow Meters Co. has just introduced a new instrument. It is the Republic electrical level and pressure indicator-recorder, and it is used for reservoirs, head and tail water levels in pumping stations, water supply tanks and for long distance gas pressure signaling and many other uses.

In reservoir work the indications and records of head and tail water levels are of great importance to the operating data of the hydro-electric engineer. The new instrument has a wide application wherever the knowledge of pressure in pipes, levels in tanks and other information of a like character saves time, and makes operation more efficient. The instrument can be made either recording or indicating, or both and the reading instrument, it is said, can be located any distance from the place where the level or pressure is to be taken.

OIL OR GAS BOILER INTRODUCED TO FIELD

The Taylor boiler has been introduced this year in the Mid-Continent fields. It is a boiler specially designed to burn oil



or gas fuel economically and safely. The furnace is a long, small diameter corrugated tube of the type which has been successfully used in Marine work for many years. The hot gases travel 14 feet through this furnace and then return 14 feet through 3-inch flues, the 28 feet of flame travel resulting in greater economy.

The most important advantage of the new construction, the manufacturers say, is in low upkeep and safety. The furnace contains no flat surfaces under pressure and, therefore, no staybolts, and the design eliminates the danger of crown sheet failures, which has been the most common cause of accidents and expensive repairs. A man can enter the boiler above the tubes for cleaning and, if the tubes are removed, can reach every part of the boiler and furnace surface for cleaning or inspection.

Operators report rapid steaming, dry steam, and a steady pressure without pulling over under sudden strains and heavy demands. An interesting application of the boiler has been preheating oil in refineries where its use is said to have resulted in marked economy of fuel and high capacity per unit cost. The boiler is round and can be rolled, which makes easy handling. The Taylor boiler is manufactured and distributed by the Coatesville Boiler Works whose Mid-Continent office is located at 604 American Exchange Bank building, Dallas, Tex.

DRILLED WORLD'S DEEPEST ROTARY WELL

The crew that drilled the well. Left to right: E. K. Allison, superintendent; Shorty Hayhurst, Bob Sanford and Cy Pedrick, drillers.

The Hughes Tool Co., of Houston Tex., is highly elated over the showing made by its tools in the drilling of the world's deepest rotary well. The Hughes equipment used is said to have stood the severe tests imposed upon it in good shape.

The well is E. J. Miley's No. 6 in Athens, Cal., and at last reports had reached a depth of 7,440 feet. The well was started December 24, 1924, and a total number of 244 days were consumed in reaching the present depth. The actual number of drilling days required was 183. In drilling the well 998 feet of 24-inch hole was made, in which 15½-inch 70-pound casing was set. Six-inch National drill pipe equipped with Hughes tool joints was employed to drill the 24-inch hole. At 4,500 feet the hole was reduced from 13 inch to 12 inch, and from this point to 5,287 feet Hughes rock bits were used continuously without once running a fish tail bit. The 8-inch casing was set at 5,287 feet. To 7,116 feet a 7¾-inch hole was drilled, and from 7,116 to 7,415 feet the hole was drilled 5¾ inches. The present program is to set the 4-inch casing at 7,440 feet and make a production test on sand that the drill has just passed through. A great amount of coring was done on this well and in spite of the rock formations encountered an average of better than 40 feet a day was made.

GRANTED PATENT ON BULL WHEEL GUDGEON

The United States patent office has granted to Meinhard H. Kotzebue, of Tulsa, Okla., a patent for a new style of gudgeon for derrick bull wheels.

The features of the new invention are that it allows the bull wheels to be transported in knocked down state, and easily assembled without sacrificing any of the strength attributed to them.

The brake wheel is composed of a pair of circular ring-like plates between which the wooden cants are firmly secured by a series of bolts. The bolts are alternately 8½ inches and 11½ inches long. The former bolts are barely long enough to pass through the felly of the wheel and secure the side plates, while the latter bolts are long enough to receive short pipe nipples that may be used for handles to turn the wheels. The patent on the new device was granted June 16, 1925.

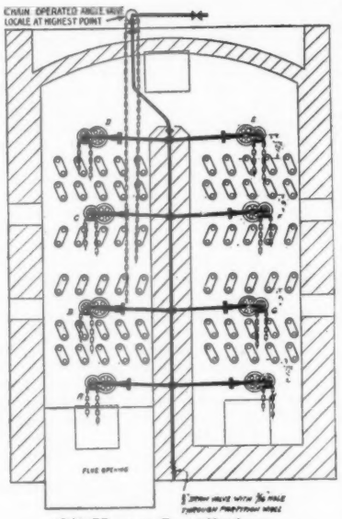
VALVE INFORMATION

The Homestead Valve Co., of Homestead, Pa., has issued a folder describing Homestead Protected Seat Hydraulic Operating Valves, and showing the further improvements that have occurred in this article since the Homestead company began its manufacture. The folder describes the construction more fully than any literature that has been printed in the past, and a copy of the folder will be forwarded to anyone interested, upon application to the Homestead company.

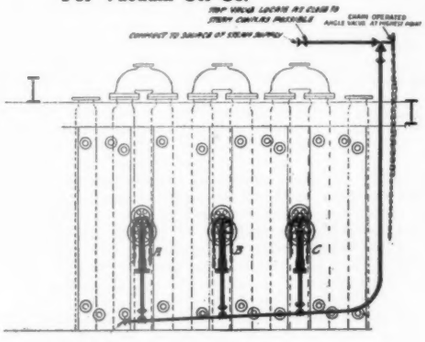
TANK PLATES ORDERED

PITTSBURGH, Pa., Sept. 12.—Pittsburgh-Des Moines Steel Co. has received an order for five 37,500-bbl. tanks for Texas installation, requiring 750 tons of plates.

How much more money would you make if your STILLS. OIL HEATERS and STEAM BOILERS were kept FREE of SOOT?



Oil Heater Installation
For Vacuum Oil Co.



Oil Pre-heater Installation
For Cosden & Co.

Here's the Answer

Soot is the best heat insulator known, being more than five times as effective as asbestos in preventing heat transferance. One inch of asbestos would let through more heat than one-fifth of an inch of soot.

You can't burn either oil or coal without getting soot on the tubes of your stills, oil heaters and steam boilers. Keep this soot off by a thorough mechanical system of soot removal, operating at regular intervals, and you will save 4 to 8 per cent or more of your fuel. You will also save labor, maintenance, equipment shutdowns and increase the capacity of your equipment.

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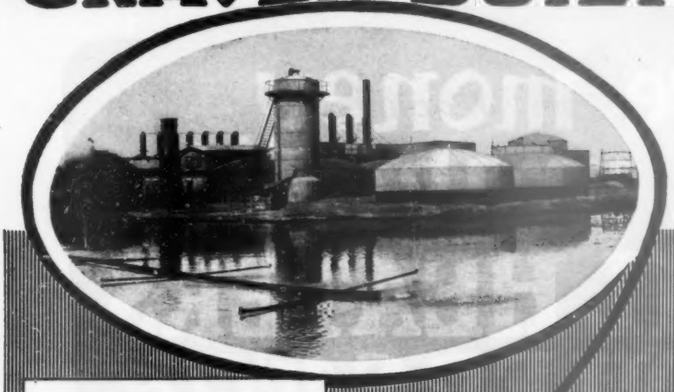
GRAVER BUILT



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PIPE INDUSTRY 85 TO 90 PER CENT; DELIVERY, NOT PRICE, BIG POINT

By B. E. V. Luty

PITTSBURGH, Pa., Sept. 14.—Despite the progress of the season, buying of casing and other well material continues to be of good volume, and the pipe mills are probably booking nearly as much tonnage as they are shipping, despite the fact that they are producing practically at capacity in this connection. A few small orders for line pipe are coming out from time to time, although it seems all the big lines were entered some time ago. A recent estimate was that pipe mills were filled full in line pipe for at least two months, or through October, but the small orders now being added are stretching out that time.

In merchant pipe there is a steady flow of business, in numerous small orders, making a good aggregate. Butt weld departments in the pipe industry as a whole are running at fully 75 per cent, while more than 90 per cent of the lap weld furnaces are going, there being practically full activity except for the two plants in Pittsburgh of the leading interest, whose operation of the new Gary plant makes a sort of substitute. The pipe industry as a whole is running at between 85 and 90 per cent of theoretical full, and this possibly means more tonnage than there was a couple of years ago, when the existing industry was running practically full, but did not have as much capacity.

Pipe Prices Very Firm

Prices of merchant pipe and oil country goods generally are very firm, with no thought of concessions. The main point in the distribution of orders is delivery, not price. On some sizes no mill can make really prompt shipment, but some can do a little better than others.

The steel market as a whole has experienced no particular change in the past fortnight. The increase in buying in July and August and the slight increase in operations that followed brought the steel trade as a whole to a pace which seems likely simply to be maintained practically through the year. The rate of steel production is about half way between the average rate in the first half of the year and the relatively low rate in July. Steel production rarely holds a uniform rate for any length of time, but it would be difficult at the present time to make a guess whether the balance of probability is for production to increase or decrease in the next couple of months. Assuming for arithmetical purposes that the present rate holds, with a little tapering off at holiday time, the year's steel ingot production would come out at about 42,000,000 tons. This would place 1925, in a tonnage way, about half way between 1923, the biggest year since the war, and 1920, the next biggest, so that 1925 would be the second best tonnage year in the seven post war years.

Steel Prices Steady

Steel prices are practically steady all along the line. Sheets have been showing a stiffening tendency for more than two months, without having really advanced much, while in the same time plates and shapes have moved off a trifle. Most lines, like pipe, have simply stayed at the same level.

Pig iron has been showing a little activity in some districts, but in the general Pittsburgh area, including the Mahoning and Shenango valleys, has continued quiet. Prices have been steady and unchanged for about three months. Producers claim the next change will have to be in the upward direction, prices being below actual cost to the merchant furnaces. For a time some producers were predicting an advance for the fourth quarter, based on prospects that coke would advance by reason of the anthracite suspension, but this seems improbable as the furnaces with perhaps an occasional exception are covered by contracts to the end of the year. Connellsville coke has advanced, furnace coke being now $3.50 to $3.75, or 75 cents above the level of last July, practically altogether on account of Eastern buying, chiefly for making water gas, but further advances may be difficult, and as reported a week ago foundry coke is up 25 cents in sympathy, being now $4 to $4.50.

FIVE YEARS' RESEARCH IN OIL SHALE PLANT

DENVER, Colo., Sept. 12—Five years of research work in the oil shale laboratory at the University of Colorado, one of the experimental stations of the United States Bureau of Mines, and the only experimental laboratory dealing with oil shale, preceded the federal grant of $90,000 to establish a refining plant to secure fuel for the United States navy.

During this time a staff of six men has sought to determine conditions which produce the highest yields of the best oils from various shales, and to discover the most effective and economical methods of refining shale oil. This last has proved most difficult, for the oil shale contains nitrogen and sulphur compounds, which are difficult to extract from the oil. These compounds are not present in petroleum, so that its refining is a much more simple process.

Oil shale, as defined by A. D. Bauer, former director of the oil shale laboratory in Boulder, and now stationed in Washington, D. C., is a compact, laminated rock of sedimentary origin, which is over 33 per cent ash, and contains organic matter, which yields oil when distilled, but not when treated with the ordinary solvents for petroleum.

Shale does not contain oil, as such, but the organic matter, known as kerogen, undergoes a change under heat, being converted into gas or oil, or both, according to conditions. There seems to be little evidence that animal life had anything to do with the formation of the oil-bearing mineral, although it probably was largely responsible for the presence of the nitrogen and sulphur.

Kerogen is thought to be of a vegetable origin, according to Mr. Bauer, the material from which it was formed having been carried down by streams and deposited in horizontal beds or strata in the inland sea, which, in prehistoric times, covered most of the continent of North America.

In Colorado this oil shale is found mainly in what is known as the Green River formation. The richest oil-bearing shales in the United States, and among the richest in the world, are found in the Green River shales of Colorado and Utah. Shales have been found which yield as high as 70 gallons of oil to the ton, although the average yield of these shales is 40 gallons. A shale which yields less than 25 gallons to the ton is considered very poor, Mr. Bauer stated, and will not be worked for a considerable time.

In the United States there has been no commercial success in the refining of shale oil, because the process of refining is more expensive than in the refining of petroleum. In Nevada, a company has operated intermittently for some time and has offered for sale gasoline and lubricating oil refined from oil shale, but, because the products were somewhat inferior to petroleum products, and because of an imperfect method of distillation, the company was forced to suspend operations.

Owing to the peculiar properties of kerogen, the ordinary still becomes ineffective after a very short time, necessitating the installation of new equipment.

In Scotland, however, oil has been successfully extracted from shales for 60 years, the shale there being much inferior to the Green River formation, yielding on the average only 15 gallons to the ton. The recovery of the nitrogen into ammonium compounds helps carry on the work, insuring the success of the industry in Scotland, where petroleum, an imported product, is much more expensive than in this country.

Fuel oil extracted from shale is as good as petroleum fuel oil, and because

Plus

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TRANSIT FIELD PUMPS

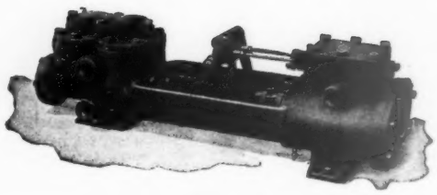


Fig. 106

7½x3½x10" Klein Type Field Pump for 500 lbs. pressure. 82-122 barrels per hour. Brass tube liners, and valve plate construction. Simple—accessible and very strong.

For field work, we know of no pumps as well adapted. They are put right out in the weather, and as long as there is any steam (and oil), they can be depended upon to pump oil.

Bulletin 102-A on request.

NATIONAL TRANSIT PUMP & MACHINE CO.

Oil City, Pa.

District Offices: New York, Philadelphia, Pittsburgh, Cleveland, Tulsa, Houston, Denver

of the research work done in the laboratory at the University of Colorado, together with an efficient method of refining similar to the one used in Scotland, it is believed shale oil for fuel can be produced successfully on a commercial basis. Not, however, until the supply of petroleum is more nearly exhausted, will any attempt be made to produce gasoline and lubricating oils commercially from shale.

The refining plant, which will be located near Rifle, where the United States navy has a reserve of 45,000 acres of Green River shale, will be known as the Pilot plant, and will be followed by more and larger plants if the enterprise proves successful.

Although there will be a small testing laboratory located at the plant, the present laboratory at the University of Colorado will continue to be used for experimental and research work by the Bureau of Mines, under the direction of J. W. Horne, who succeeded Mr. Bauer. Private industries are free to use the methods employed by the Pilot plant if they so desire, Mr. Bauer stated.

OF SPECIAL INTEREST TO USERS OF BOILERS

The Andrews Bradshaw Co., of Pittsburgh, Pa., has issued a booklet, "The Physical Side of Concentration in Boilers." This is a reprint of a paper by Roger W. Andrews before the National Electric Light Association, and has appeared in Engineers and Engineering, a Pittsburgh publication.

The paper is very interesting to those who have occasion to use or work around boilers of any description. It has a chapter devoted to feed water treatment, which handles this topic in a masterful style, and gives some examples to strengthen the theory of the author.

LARGEST BOTTLE WAREHOUSE

The Illinois Glass Co. has mailed out the September number of "Glass," the house organ of that corporation. This month's issue contains a couple of humorous stories with a moral, a poem or two and some interesting articles on the improved ethics of modern business. The book also contains a picture of the foundation of a new warehouse of the Illinois Glass Co. at Alton, Ill. The new building is said to be the largest bottle warehouse in the world.

VENEZUELAN EXPORTS OF PETROLEUM IN 1925

Six months of 1925 brought Venezuelan exports of crude petroleum to 1,150,819 metric tons, which Vice Consul Charles F. Payne reports was more than was shipped during the first 11 months of 1924 and an increase of 213 per cent over the exportation of the first half of that year. During the second quarter of 1925, however, there was a decreasing exportation, due partly to a decline in production at Mene Grande and partly to the fire which occurred at La Rosa during the early days of June. That month's exports of crude petroleum from Maracaibo fell to a minimum for 1925. Shipments of oil from Mene Grande fell off about 20,000 tons, and one of the companies operating at La Rosa reduced its exports by almost 50 per cent. The first shipments of oil from La Concepcion and La Paz fields appear in the following table, which shows (in metric tons) exports for the first six months of 1925:

Exports of Crude Petroleum from Venezuela, First Half of 1925
(Tons)

Month—	Mene Grande	La Rosa	La Paz and Concepcion	El Mene	Total
January	41,262	92,384	.....	32,739	166,385
February	41,832	105,616	.....	29,944	177,392
March	62,687	135,957	.....	43,019	241,663
April	80,571	122,178	.....	24,246	227,995
May	88,917	78,214	.....	22,310	189,441
June	64,739	56,443	4,449	22,312	147,943
Total	380,008	*591,792	4,449	174,570	1,150,819

*Includes crude shipped to the Paraguana Peninsula for later exportation to the United States.

This gives a monthly average exportation of 191,803 tons, which contrasts with a monthly average of 101,017 tons in 1924 and 42,004 tons in 1923.

Central New Mexico Counties Now Being Tested by Operators

VAUGHN, N. Mex., Sept. 12.—Four central New Mexico counties are receiving considerable attention from independent operators at present. Seven tests are now under way in this area with tools being moved on several others. Field representatives of major companies are daily visitors in Vaughn looking over the new prospects. Some of the large companies are preparing to keep field men here while the various tests are under way.

The Eddleman test in the southwest quarter of the northeast quarter of Section 6, Township 4, Range 20e, Guadalupe County, is drilling below 200 feet. M. E. Eddleman, owner of the well is changing from coal to oil as he finds the heat units of the former fuel not up to standard. This test is practically in the center of a tract comprising 39,000 acres.

The Hinkle interests of California have spudded in on Section 4-2n-20e, DeBaca County, on what is locally known as the Buchanan Dome. A machine is being used at present.

The Transport Oil Co., a Denver corporation, has been shut down for orders, after spudding in on Section 10-3n-17e, Guadalupe County.

The Munoz interests of New York, owners of the New Mexico Central Railroad, are moving a rig on their holdings in Torrance County. The first of two tests proposed by this company will be drilled on Section 5-6-7e.

Albuquerque interests are preparing to test a sand in the Woods' well, Section 7-12n-10e. Santa Fe County, 35 miles southeast of Santa Fe and 45 miles north of Albuquerque. The hole has been plugged back from a total depth of 3,500 to 2,109 feet, which is reported to be the bottom of the only pay encountered. The water above this sand has been cemented off and the well will be shot at the shallower depth.

Two miles north of the Woods' well, in Section 30-13n-10e, a derrick has been erected and late reports are that machinery is in transit for this test. The well will be financed by Judge Fullerton and Wayman Dobsen, of Miami, Okla. Representatives of these men say this is the first of four tests to be drilled by the company.

J. L. Layne and others, California people, are drilling below 3,780 feet in Section 2-6n-26e, on what is known as the Spaulding Dome, DeBaca County. This test is 40 miles east of Vaughn.

The McAdoo well, also a DeBaca County test, is drilling below 1,500 feet on Section 16-1s-27e, on what is known as the Buffalo Creek structure.

The Dalies well, near Belen is shut down waiting for 6⅝-inch casing after reporting themselves on top of the sand at 2,230 feet. Eight-inch has been run to a total depth of 2,215 feet.

Heavy rains throughout this section of the State have acted as a retardment toward much new proposed development the past 10 days.

IN SAN FRANCISCO MARKET

SAN FRANCISCO, Cal., Sept. 12.—As a part of its recently announced $5,000,000 expansion program, the Richfield Oil Co. of Los Angeles has started distribution of its refined products in San Francisco. The company started in this city with a nucleus of 75 independent dealers and reports marked success in the sale of its products.

STEARNS-ROGER

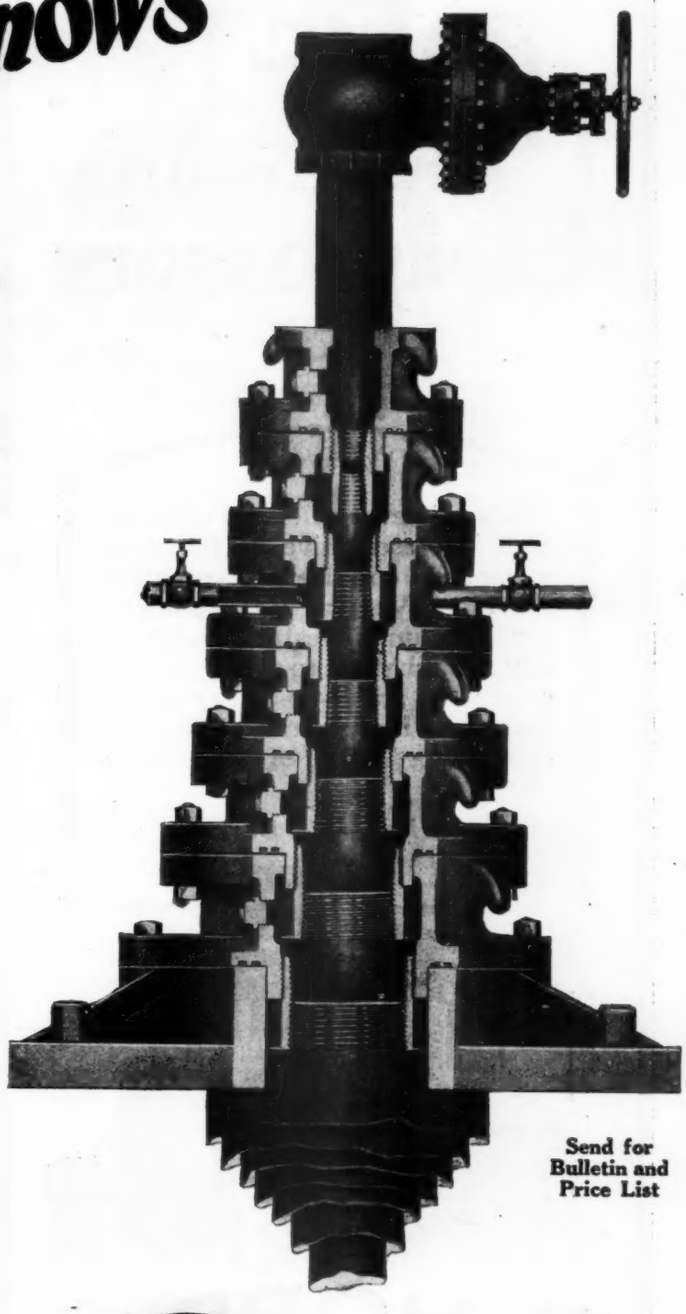
You know This man knows

He says—

"It can't be beat for long strings of pipe"

The Ohio Oil Co.

John McFadyen
Vice Pres.



"The Original"

Blowout Preventer

and

Pipe Suspension Device

"Redick Patent"

The Redick Blowout Preventer and Pipe Suspension Device is invaluable where deep drilling is necessary or when high pressures are encountered.

All blocking is eliminated, greatly reducing depth of cellar, no damage from fire.

When supporting 20 to 6¼" strings, its maximum overall height is but approximately 5 feet.

It saves all flow of gas and oil between strings.

It makes mudding off and cementing under pressure easy.

Some of the Producers Who Use and Recommend It:
OHIO OIL CO. CARTER OIL CO.
UNION OF CALIFORNIA

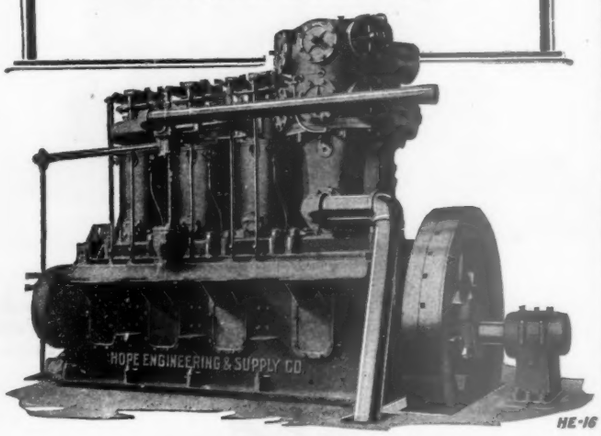
Send for Bulletin and Price List

Stearns-Roger

THE STEARNS-ROGER MFG. CO. DENVER COLORADO

Modern in every element of its design, representative of the most advanced engineering practice, the Hope Vertical Gas Compressor is a sound investment—for today and for years to come. It possesses the stand-up-ability which makes its high initial economy a continuing feature of its performance.

Write for the Details



HE-16

ENGINEERS CONTRACTORS

HOPE Engineering & Supply COMPANY

DESIGNERS MANUFACTURERS

MT. VERNON, OHIO, U. S. A.

PETROLEUM STATISTICS FOR JULY, 1925

Compiled by G. R. Hopkins, Petroleum Economist

Crude Petroleum: The production of crude petroleum in the United States, as reported to the Bureau of Mines during the month of July, 1925, amounted to 67,318,000 bbls., a daily average of 2,172,000 bbls. Although the monthly total is a record figure, daily average production showed a decline of 51,000 bbls. per day, or 2 per cent from the high figures of the previous month. In general, July was a month of increased production in the small fields and of decreased production in the larger fields. The decreased production in the Smackover Field was largely responsible for the decline in total production. Production in the Eastern, Oklahoma and Texas fields also fell off. Kansas showed a decrease for the first time since December, 1924. On the other hand, production in Colorado, Montana, New Mexico, Kentucky, and New York showed material percentage increases. California and the Salt Creek Field continued to register gains, and offset much of the decline in the Mid-Continent.

East of California, crude stocks, reacting to increased runs to stills and to a falling off in production, declined 2,303,000 bbls. These stocks totaled 308,429,000 bbls. at the end of the month. Stocks of heavy crude in California continued to increase, showing a gain of 3,225,000 bbls. during the month. Runs to stills in the State showed a material increase and stocks of light crude were reduced.

Refined Products: During July, reports were received from 317 refineries with aggregate daily capacity of 2,537,000 bbls. These refineries ran to stills 67,577,456 bbls. of both foreign and domestic crude oil while operating at 86 per cent of their rated capacity. This also was a record figure for oils run to stills, it being an increase of 1 per cent over the previous record figure of June, 1925, and of 28 per cent over that of July, 1924.

The production of gasoline again set a record figure for total monthly production, amounting to 967,000,000 gallons, a daily average of 31,200,000 gallons. This latter represents a decrease of 1 per cent from the previous month but is an increase of 31 per cent over July, 1925. The indicated domestic consumption of gasoline during the month was 963,000,000 gallons, a daily average of 31,100,000 gallons. Both of these figures are record figures, the latter being an increase over the previous month of 8 per cent and over July, 1924, of 22 per cent. Since production and consumption kept pace, stocks were reduced only 84,000,000 gallons, standing, July 31, 1925, at 1,611,000,000 gallons. This indicates a decrease in stocks during July of only 5 per cent, as compared with a vast average of approximately 10 per cent.

The production of gas and fuel oils again registered record figures and stocks (east of California) were materially increased. Lubricants and wax showed comparatively little change during the month. Stocks of the latter continued their slow increase.

PRODUCTION OF CRUDE PETROLEUM BY FIELD AND STATES WITH CLASSIFICATION BY GRAVITY

(Barrels of 42 U. S. Gallons)

Field—	June, 1925 Total	June, 1925 Daily Av.	July, 1925 Total	July, 1925 Daily Av.	Jan.-July 1925	Jan.-July 1924a
Appalachian	2,350,000	78,333	2,389,000	77,065	16,921,000	15,846,000
Lima-Indiana	198,000	6,600	193,000	6,226	1,378,000	1,382,000
Illinois-S. W. Indiana	722,000	24,067	748,000	24,129	4,979,000	5,162,000
Mid-Continent	38,515,000	1,283,828	37,565,000	1,211,772	246,903,000	213,667,000
Gulf Coast	2,810,000	93,667	2,980,000	96,129	18,103,000	16,781,000
Rocky Mountain	2,792,000	93,067	3,032,000	97,806	19,601,000	27,488,000
California	19,288,000	642,938	20,411,000	658,421	130,718,000	136,156,000
U. S. total	66,675,000	2,222,500	67,318,000	2,171,548	437,503,000	416,482,000
State—						
Arkansas	9,166,000	305,533	7,991,000	257,774	42,088,000	37,258,000
California	19,288,000	642,938	20,411,000	658,421	130,718,000	136,156,000
Colorado	54,000	1,800	89,000	2,871	468,000	96,000
Illinois	665,000	22,167	689,000	22,226	4,593,000	4,760,000
Indiana	74,000	2,467	75,000	2,419	501,000	572,000
Southwestern	57,000	1,900	59,000	1,903	386,000	402,000
Northeastern	17,000	567	16,000	516	115,000	170,000
Kansas	3,554,000	118,467	3,616,000	116,645	21,333,000	16,233,000
Kentucky	567,300	18,910	599,700	19,345	4,040,900	4,399,000
Louisiana	1,657,000	55,233	1,705,000	55,000	11,589,000	12,253,000
Gulf Coast	204,000	6,800	251,000	8,097	1,527,000	1,355,000
Rest of State	1,453,000	48,433	1,454,000	46,903	10,062,000	10,918,000
Montana	321,000	10,700	357,000	11,516	1,903,000	1,499,000
New Mexico	69,000	2,300	91,000	2,935	314,000	7,000
New York	140,000	4,667	148,500	4,774	930,000	824,000
Ohio	630,000	21,000	631,000	20,355	4,162,000	3,958,000
Central and east	449,000	14,967	454,000	14,645	2,999,000	2,746,000
Northwestern	181,000	6,033	177,000	5,710	1,163,000	1,212,000
Oklahoma	14,629,000	487,629	14,745,000	475,643	102,554,000	95,153,000
Osage County	2,429,000	80,967	2,451,000	79,065	17,065,000	23,169,000
Rest of State	12,200,000	406,662	12,294,000	396,578	85,489,000	71,984,000
Pennsylvania	680,000	22,667	684,000	22,065	4,547,000	4,379,000
Tennessee	1,700	56	1,300	42	7,100	4,000
Texas	12,319,000	410,633	12,488,000	402,839	87,442,000	79,551,000
Gulf Coast	2,606,000	86,867	2,729,000	88,032	16,576,000	15,446,000
Rest of State	9,713,000	323,766	9,759,000	314,807	70,866,000	64,105,000
West Virginia	512,000	17,066	502,000	16,194	3,397,000	3,494,000
Wyoming	2,348,000	78,267	2,495,000	80,484	16,916,000	25,879,000
Salt Creek	1,643,000	54,767	1,773,000	57,194	12,251,000	20,800,000
Rest of State	705,000	23,500	722,000	23,290	4,665,000	5,079,000
Classification by gravitity. (Approximately.)—						
Light crude	45,243,000	1,508,100	45,796,000	1,477,290	317,342,000	317,305,000
Heavy crude	21,432,000	714,400	21,522,000	694,258	120,161,000	99,177,000

aFinal figures.

DEFINITION OF PRODUCTION

The 1925 figures given on the preceding page for the States east of California, compiled from reports made to the Bureau of Mines by companies that operate gathering or lead lines, are preliminary and show the quantity of petroleum transported from producing properties, which ordinarily amounts to 99 per cent of the total production. Petroleum consumed on the leases and produced but not transported from the producing properties is not included in the preliminary figures. These items are given in the final statistics, which show all the oil brought to the surface. Current figures for California are those reported by the Pacific Coast office of the American Petroleum Institute. Final figures for California are compiled by the California State Mining Bureau.

CLASSIFICATION OF PRODUCTION BY GRAVITY

Light crude: aEast of California: Crude oil 24° A. P. I. (0.910) and lighter.
bCalifornia: Crude oil 26° A. P. I. (0.934) and lighter.
Heavy crude: aEast of California: Crude oil heavied than 24° A. P. I.
bCalifornia: Crude oil heavier than 20° A. P. I.

CLASSIFICATION OF STOCKS OF CRUDE PETROLEUM

Stocks of crude petroleum for statistical purposes are classified as follows:

1. Stocks at refineries east of California: Domestic and foreign crude petroleum held by the refining companies in tanks on, or adjacent to, refinery grounds.

2. Stocks elsewhere than at refineries east of California: aPipe line and tank farm stocks of domestic petroleum. Petroleum that has been transported from the producing properties but not delivered at refineries or other points of consumption. For the States east of California such stocks are reported monthly to the Bureau of Mines as gross stocks, including the total contents of tanks and pipe lines, and as net stocks, which are gross stocks minus sediment and water.

bForeign crude petroleum: Foreign crude held by importers elsewhere than at refineries.

3. California stocks: Stocks of domestic crude petroleum and fuel oil held in the United States by the California refining companies divided as follows: aHeavy—heavier than 20° A. P. I., including all grades of fuel oil.

bLight—refinable crude, 20° A. P. I. and lighter.

4. Producers' stocks: Petroleum held on the producing properties (stocks at the wells.) Producers' stocks have been reported annually, as of December 31, and are included in the final annual statistics. Since 1919 producers' stocks east of California have ranged between 3,500,000 and 10,000,000 bbls.

STOCKS OF CRUDE PETROLEUM HELD IN THE UNITED STATES

(Figures are for domestic crude petroleum unless otherwise specified.)

	June 30 1925	July 31 1925	July 31 1924
At refineries: Reported by location of storage—			
East Coast—Domestic	3,784,000	3,601,000	3,355,000
Foreign	2,100,000	2,209,000	2,141,000
Appalachian	1,253,000	1,307,000	1,326,000
Indiana and Illinois	1,558,000	1,438 000	1,481,000
Oklahoma and Kansas	5,422,000	5,290,000	4,945,000
Texas—Gulf Coast:			
Domestic	5,520,000	5,496,000	4,647,000
Foreign	651,000	663,000	793,000
Rest of State	1,120,060	1,289,000	1,324,000
Louisiana and Arkansas—Louisiana Gulf Coast:			
Domestic	3,933,000	4,533,000	5,459,000

A BAD SITUATION

is encountered when the bit deflects from the "straight and narrow" and starts a CROOKED HOLE. Isn't it much better to prevent rather than remedy this condition? Certainly—and it can be done by using a

JAQUES FORGED STEEL DRILLING CONNECTION

Made from the Solid under a 2,000 Ton Hydraulic Forging Press, Free from Welds

Here are a few of the many features that reflect instantly a degree of progression towards the ultimate in oil well drilling by the use of the Jaques Winged Drilling Connection.

1—Prevents crooked holes.
2—Lessens jar breakage.
3—Cleans hole for bailer.
4—Allows more than one screw before running bailer.
5—Prevents cutting of the drilling cable.
6—Eliminates the possible cave-in.
7—Undue wall friction eliminated.
8—Reduces the whipping of drill cable.
9—Tools always in the center of the hole for fishing.
10—Gives the tools a rotary motion, preventing key-seating.

The Winged Drilling Connection fills the hole, guiding the bit, but allows the mud to pass through the openings between the wings, thus not only correcting, but preventing, crooked holes.

The superior workmanship together with the many distinctive advantages over the common auger stem, place it in a class by itself.

"If CONTINENTAL Sells It There Is No Better"

THE CONTINENTAL SUPPLY COMPANY
General Offices: St. Louis
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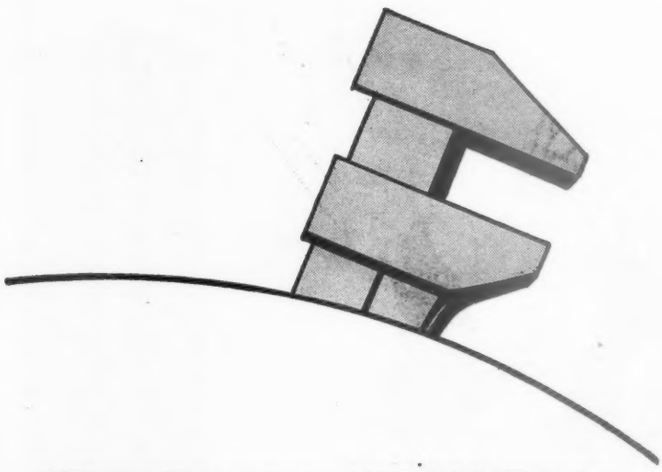
London Office: Finsbury Court, Finsbury Pavement, London E. C. 2, England

MORE THAN 70 STORES IN THE OIL COUNTRY

CONTINENTAL

EASY *to* INSTALL



ANY man with a wrench can quickly install the Westinghouse rig lighter. Connect a couple of pipes, tighten up four foundation bolts, connect to your lighting system, turn on the steam, and you have sufficient light to illuminate the entire rig, the sheds, and all immediate surroundings.

The Westinghouse Rig Lighter is obtainable at all oil country supply stores. It is easy to transport. You can carry it away in your car. It weighs only 250 pounds, complete.

Write our nearest district office for Leaflet 20019-C for further information.

Westinghouse Electric & Manufacturing Company
East Pittsburgh Pennsylvania
Sales Offices in All Principal Cities of the United States and Foreign Countries

Foreign		1,423,000	1,421,000	1,311,000
Rest of Louisiana and Arkansas		678,000	604,000	262,000
Rocky Mountain		1,381,000	1,456,000	1,310,000
U. S. total east of California		33,882,000	34,307,000	33,354,000
Elsewhere than at refineries: Reported by field of origin—Appalachian:				
N. Y., Pa., W. Va., Eastern and	Gross	7,282,000	7,127,000	6,846,000
Central Ohio	Net	7,031,000	6,874,900	6,586,000
Kentucky	Gross	2,963,000	2,004,000	2,753,000
	Net	1,954,000	1,901,000	2,621,000
Lima-Indiana	Gross	1,353,000	1,326,000	1,349,000
	Net	1,150,000	1,126,000	1,124,000
Illinois-S. W. Indiana	Gross	11,479,000	11,379,000	11,537,000
	Net	10,986,000	10,886,000	11,040,000
Mid-Continent: Oklahoma, Kansas, Central, North and West Texas	Gross	177,723,000	174,775,000	187,920,000
	Net	166,204 000	163,348,000	176,433,000
North Louisiana and Arkansas	Gross	41,357,000	41,793,000	39,049,000
	Net	39,436,000	39,708,000	36,931,000
Gulf Coast	Gross	20,862,000	21,246,000	21,415,000
	Net	20,443.000	20,791,000	21,016,000
Rocky Mountain	Gross	28,788,000	28,607,000	28,246,000
	Net	28,756,000	28,572,000	28,224,000
U. S. Total pipe line and tank farm stocks east of California	Gross	290,907,000	288,257,000	299,105,000
	Net	275.960,000	273,206,000	283,975,000
Foreign crude petroleum on Atlantic Coast		79,000	173,000	215,000
Foreign crude petroleum on Gulf Coast		811,000	743,000	1,003,000
Grand total refinery, pipe line and tank farm stocks east of California, and stocks of foreign crude held in the United States by importers elsewhere than at refineries		890,000	916,000	1,218,000
		310,732,000	308,429,000	318,547,000
California stocks	Light	45,226,000	44,269,000	.....
	Heavy	64,977,000	69,159,000	.....

IMPORTS AND EXPORTS OF CRUDE PETROLEUM (Bbls.)

(From Bureau of Foreign and Domestic Commerce)

	June 1925		July 1925		Jan.-July	Jan.-July
	Total	Daily Av.	Total	Daily Av.	1925	1924
Imports:	5,153,000	171.767	4,283,000	138,161	40.315.000	49,297,000
From Mexico	4,898.000	163,267	3,908,000	126,064	36,982,000	46,886,000
From other countries	255,000	8,500	375,000	12,097	3,333.000	2,411,000
Exports:	1,255,000	41,833	1,302,000	42,000	8,059.000	11,041,000
Domestic crude oil:						
To Canada	810,000	27,000	884,000	28,516	4,927,000	6,943,000
To other countries	427,000	14,233	386,000	12,452	3,002.000	3,867,000
Foreign crude oil	18,000	600	32,000	1,032	130,000	231,000

INDICATED DELIVERIES OF CRUDE PETROLEUM, EXCLUSIVE OF CALIFORNIA GRADES TO DOMESTIC CONSUMERS (Bbls.)

(Production plus imports minus exports aplus stocks, exclusive of consumers' stocks, at beginning of month minus stocks at end of month.)

	June 1925		July 1925		Jan.-July	Jan.-July
	Total	Daily Av.	Total	Daily Av.	1925	1924
Domestic petroleum by fields of origin—						
Appalachian	2,402,000	80,067	2,599,000	83,839	16,432.000	15,855,000
Lima-Indiana	257,000	8,567	217,000	7,000	1,373,000	1,235,000
Illinois and S. W. Ind..	796,000	26,533	848,000	27,355	4,963.000	5,212,000
Mid-Continent	40,993,000	1,366,433	40,149,000	1,295,129	254,405,000	263,709,000
Gulf Coast	2,692,000	89,733	2,632,000	84,903	17,512,000	19,952,000
Rocky Mountain	2,931,000	97,700	3,216,000	103,742	19,701,000	19,096,000
Deliveries and exp'ts.	50,071,000	1,669,033	49,661,000	1,601,968	314,386,000	265,059,000
Deliveries	48,834,000	1,627 800	48,391,000	1,561,000	306,457,000	254,249,000
Foreign petroleum	5,271,000	175,700	4,225,000	136.290	40,003,000	49,231,000
Deliveries of domestic and for'gn petroleum	54,105,000	1,803,500	52,616,000	1,697,290	346,460,000	303,480,000

aIncluding exports of California crude oil which can not be separated.

NUMBER OF PRODUCING OIL WELLS COMPLETED*

June, 1925	1,706
July, 1925	1,791
January-July, 1925	9,697
January-July, 1924	8,976

*For States east of California, from The Oil and Gas Journal; for California, from the American Petroleum Institute.

SHIPMENTS OF CALIFORNIA OIL THROUGH PANAMA CANAL TO EASTERN PORTS IN UNITED STATES

(From Panama Canal Record)

(Compiled from declarations of masters of vessels reported in tons of 2,240 pounds.)

	June, 1925	July, 1925	Jan.-July, 1925	Jan.-July, 1924
Crude oil: Long tons	151,640	133,011	1,363 299	3,702,000
Barrels (approx.)	1,107,000	971,000	9,952.000	27,025,000
Refined products: Long tons	183,317	237,439	962,752	324.000

COMPARATIVE ANALYSES OF MAJOR REFINED PRODUCTS, JULY AND PRECEDING MONTHS

	Production	Imports*	Exports*	Stocks End of Period	Domestic Demand
Gasoline (gals.):					
May	922,046,254	16,945,275	101,159.037	1,716,921,732	841,787,932
June	944,175,287	16,127,687	113,658,820	1,695,216,272	868,349,604
July	966,907,995	16,844,860	105,107,707	1,610,789,806	963,071,614
Kerosene (gals.):					
May	202,559,475	553,487	57,587,038	452,808,655	127,390,987
June	193,663,519	106,989	69.673,383	472,370,819	104,534,961
July	193,470,829	79,500	72,366,856	444,019,925	149,534,367
	For United States			For East of Calif.	
Gas and Fuel Oils (gals.):					
May	1,274,464,859	45,778,091	151,274,021	946,781,936	.....
June	1,360,385,855	69,220.826	143,593,612	1,082,056,430	.....
July	1,444,984,228	48,670,880	131,738,175	1,168,486,731	.....
Lubricants (gals.):					
May	109,183,815	445,890	38,503,772	292,112,071	69,018,340
June	104,535,090	249,367	31,333,717	278,610,332	86,952,479
July	104,396,012	117,169	32,996,990	287,569,538	66,556,985
Wax (lbs.):					
May	50,269,130	3,778,799	22,255,157	109,821,714	25,280,932
June	43,348,475	1,411,555	22,071,072	110,383,659	22,127,013
July	46,031,967	1,922,398	26,593,581	112,942,272	18,802,171

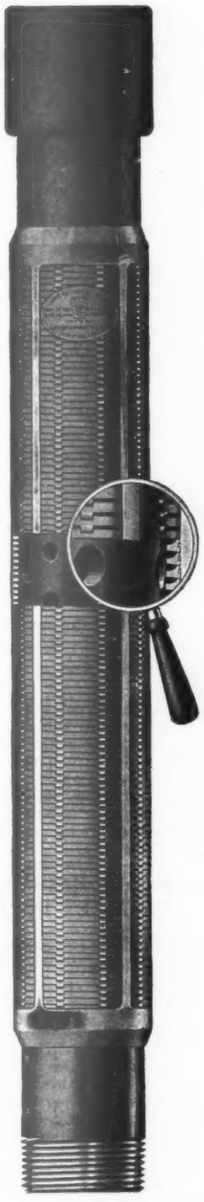
*From Bureau of Foreign and Domestic Commerce. Exports, except for wax, include shipments to Alaska, Hawaii and Porto Rico.

RUNS TO STILLS AND OUTPUT OF REFINERIES IN THE UNITED STATES

	Crude Oils		Unfinished Oils	Natural Gas Gasoline	Total Oils Run to Stills
Oils run to stills (bbls.):	Domestic	Foreign			
East Coast	10,495,476	1,302,593	547,963	212,248	12,558,284
Appalachian	2,122,306	.....	77,476	30,428	2,230,210
Indiana and Illinois	6,012,787	.....	298,838	85,306	6,396,931
Oklahoma and Kansas	9,352,021	.....	279,259	264,887	9,896,167
Texas	11,532,295	650,781	426,473	275,768	12,884.317
Louisiana and Arkansas	5,579,545	639,468	257,357	47,822	6,524,192
Rocky Mountain	2,481,806	.....	810,575	89,555	3,381,936
California	17,408,379	.....	260,190*	320,916	17,989,485
Total U. S.	64,984,614	2,592,842	2,957,136	1,326,930	71,861,522
Daily average 7-25	2,096.278	83,640	95.391	42.804	2,318,114
Daily average 6-25	2,028,706	132,875	94,016	47,948	2,303,545
Texas Gulf Coast	8,504,471	650,781	297,796	239,942	9,692,990
Louisiana Gulf Coast	4,017,389	639.468	217,958	.....	4,874,815
Output and losses:	Gasoline (gals.)	Kerosene (gals.)	Gas and Fuel Oils (gals.)	Lubricants (gals.)	Wax (lbs.)
East Coast	158,003,758	41,994,013	232,104,192	31,586,808	18,098,179
Appalachian	25,847,920	11,798,656	20,416,824	15,947,662	6,502,803
Indiana and Illinois	133,970,221	20,734,399	69,937,272	10,935,337	6,660,001
Oklahoma and Kansas	194,509,114	37,163,351	150,745,133	7,843,748	3,917,291
Texas	180,128,147	36,587,582	243,886,477	25,272,446	4,333,062
Louisiana and Arkansas	50,461,039	17,665,195	162,516,983	3,046,636	2,325,198

To Uniformly Accurate Openings Between the Wires

IS DUE THE GREAT EFFECTIVENESS OF



THE LAYNE

PATENTED

Keystone-Wire Screen

Compare the two screen sections illustrated. NOTE VERTICAL ALIGNMENT OF LUGS shown in illustration on the left. This vertical arrangement of the lugs, which are correctly sized and accurately placed, permits of VERY HEAVY SIDE PRESSURE being put on the wire DURING THE WINDING (by patented Layne & Bowler winding machine), because the lugs press against adjacent wire at points supported by adjacent lugs (instead of points opposite spaced portion of screen, as in illustration to the right).

Hence, not only is uniform, accurate spacing obtained, but the maintaining of this uniform accuracy is ensured because vertical alignment of lugs under heavy side pressure positively prevents displacement of the wire on the perforated pipe.

UNIFORM ACCURATE OPENINGS PREVENTS SAND-CUTTING THAT WOULD OCCUR FROM OPENINGS TOO LARGE—AND LACK OF FILTRATION THAT WOULD BE CAUSED BY OPENINGS TOO SMALL.

Section of old style Layne screen, showing staggard alignment of lugs.

The heavy side pressure to which the wire and lugs are subjected under our present winding process would be impossible with this arrangement of the lugs, as the lugs would press against the spaced portion of the screen instead of against adjacent lugs. Although our patents have only recently expired on this method of winding, we discarded this method in favor of our present winding (with vertical alignment of lugs under heavy side pressure) many years ago.

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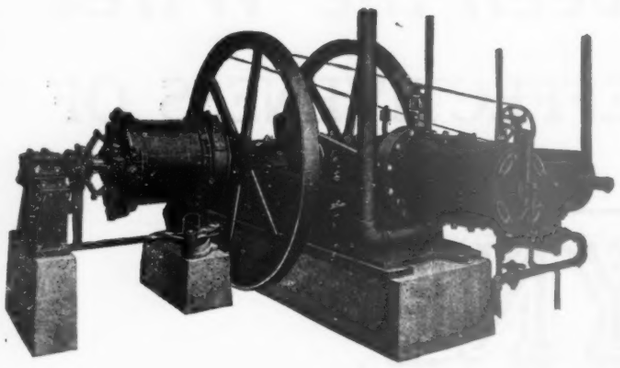
Meet us in Booth No. 3, Kentucky Building, at the Exposition

Pulling Tools



A drilling engine, to be successful, should be able to pull tools fast. The following report shows how Reid Drilling Engines can pull tools.

The well was located near Logan, Ohio. The tools used were a 3½-inch by 38-foot stem, a 5-inch by 5-foot bit, drilling jars and rope socket, the string totalling forty-six feet in length.

This string of tools was pulled from a depth of 2525 feet in eight minutes, 15 seconds, or at the rate of over 300 feet per minute.

The bailer was pulled from this depth, 2525 feet, in three minutes, 25 seconds.

Speed pulling tools and bailers as shown in the above report is one of the many advantages gained by using Reid Drilling Engines. They are fast and easy to handle. Their economy of fuel is such that an engine has been known to pay for itself in the amount of fuel saved on the first well drilled.

We have printed a booklet in which will be found reports of some of the work done by Reid Gas and Oil Drilling Engines. A copy will be furnished you upon request. Ask for Bulletin No. 28.

Joseph Reid Gas Engine Co.
Oil City, Pennsylvania, U. S. A.

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Branch Shop—TULSA, OKLA.

Rocky Mountain	56,390,423	6,363,802	44,400,652	1,954,919	3,695,433
California	157,597,373	21,193,831	520,983,595	7,808,456	.....
Total U. S.	966,907,995	193,470,829	1,444,984,228	104,396,012	46,031,967
Daily average 7-25	31,190,580	6,240,994	46,612,394	3,367,613	1,484,902
Daily average 6-25	31,472,509	6,455,451	45,346,195	3,484,503	1,444,949
Texas Gulf Coast	131,558,959	29,806,940	181,633,693	23,671,356	3,937,783
Louisiana Gulf Coast	40,202,497	15,123,898	113,874,858	2,749,276	2,825,198

	Coke (tons)	Asphalt (tons)	Other Finished Prod. (gals.)	Unfinished Prod. (gals.)	Losses (bbls.)
East Coast	18,063	117,759	6,268,936	3,351,590	477,084
Appalachian	1,335	.....	1,297,141	931,610	145,355
Indiana and Illinois	21,614	15,698	8,157,417	5,308,940	225,696
Oklahoma and Kansas	9,942	.....	2,736,182	3,378,596	380,771
Texas	21,366	36,777	811,177	22,882,816	439,179
Louisiana and Arkansas	10,191	38,324	6,977,985	16,492,866	119,304
Rocky Mountain	6,407	5,946	355,774	25,655,742	76,735
California	.....	55,199	4,490,803	24,885,824*	135,048
Total U. S.	88,918	269,703	31,095,415	102,887,985	1,999,172
Daily average 7-25	2,868	8,700	1,003,078	3,318,967	64,489
Daily average 6-25	2,889	8,767	1,066,456	3,041,383	70,446
Texas Gulf Coast	18,918	36,777	7,956	13,584,884	342,870
Louisiana Gulf Coast	9,451	37,616	6,295,186	11,499,839	83,549

*Includes 199,317 bbls. net tops produced.

GASOLINE PRODUCTION BY THE VARIOUS METHODS—JULY, 1925
(Gallons)

District—	Straight Run	Pct.	Cracked	Pct.	Natural Gas Gasoline	Pct.	Total
East Coast	101,008,015	64	48,081,327	30	8,914,416	6	158,003,758
Appalachian	26,165,586	73	8,404,358	23	1,277,976	4	35,847,920
Indiana and Illinois	73,413,706	55	56,973,663	42	3,582,852	3	133,970,221
Oklahoma and Kansas	137,170,332	70	46,213,628	24	11,125,254	6	194,509,114
Texas	103,833,944	58	64,712,847	36	11,582,256	6	180,129,147
Louisiana and Arkansas	37,320,021	74	11,132,494	22	2,008,524	4	50,461,039
Rocky Mountain	29,422,368	52	23,206,745	41	3,761,310	7	56,390,423
California	143,490,255	91	628,646	..	13,478,472	9	157,597,373
Total U. S.	651,823,327	67	259,353,708	27	55,731,060	6	966,907,995
Total U. S. 6-25	631,196,894	67	252,895,550	27	60,082,843	6	944,175,287
Texas and La. Gulf Coasts*	94,381,230	55	67,302,662	39	10,077,564	6	171,761,456

*Included above under Texas, Louisiana and Arkansas.

STOCKS HELD BY THE REFINING COMPANIES IN THE UNITED STATES
July 31, 1925

(Gallons)	Gasoline	Kerosene	Gas and Fuel Oils	Lubricants
East Coast	359,920,898	85,736,973	286,765,829	99,255,380
Appalachian	32,328,308	11,620,793	27,230,623	35,890,407
Indiana and Illinois	185,045,731	50,399,545	59,776,280	29,082,075
Oklahoma and Kansas	134,043,622	31,509,947	163,534,705	16,620,719
Texas	180,269,711	123,605,703	362,487,023	59,881,541
Louisiana and Arkansas	178,271,546	57,586,789	204,865,425	5,311,582
Rocky Mountain	137,247,267	14,524,859	53,826,836	5,584,773
California	403,662,723	69,035,316	.....	35,943,061
Total U. S.	1,610,789,806	444,019,925	1,168,486,721	287,569,538
Total U. S. 6-30-25	1,695,216,272	472,370,819	1,082,056,430	278,610,332
Texas Gulf Coast	163,482,208	111,524,202	232,900,272	56,761,844
Louisiana Gulf Coast	172,620,413	56,834,641	183,173,191	4,561,336

	Wax (lbs.)	Coke (tons)	Asphalt (tons)	Other Fin. Prod. (gals.)	Unfinished Oils (bbls.)
East Coast	48,148,606	21,264	86,684	10,615,117	8,053,655
Appalachian	19,035,905	1,220	83	2,384,174	1,036,645
Indiana and Illinois	18,532,623	18,717	11,482	15,206,375	3,696,837
Oklahoma and Kansas	3,637,770	33,861	6 92	4,865,124	2,062,519
Texas	11,215,212	63,790	13,764	262,735	7,522,444
Louisiana and Arkansas	2,832,944	40,669	15,209	2,374,286	1,931,583
Rocky Mountain	9,444,891	34,459	9,500	523,577	1,902,288
California	94,321	.....	23,064	7,324,893	*13,186,665
Total U. S.	112,942,272	213,980	160,478	43,556,281	39,392,936
Total U. S. 6-30-25	110,383,659	191,575	141,687	46,888,135	38,104,337
Texas Gulf Coast	11,095,609	62,221	13,764	30,768	7,029,925
Louisiana Gulf Coast	2,832,944	37,828	15,069	1,374,286	1,659,329

*Includes 6,119,741 bbls. tops in storage. Last month this figure was incorrectly reported; it should have been 6,139,319 bbls.
Note—Corrected figure for stocks: California heavy crude, Dec. 31, 1924, 55,803,948 bbls.

DOHERTY COMPANIES OPTION COLORADO GAS

DENVER, Colo., Sept. 12.—Announcement is made by representatives of the Cities Service Co., of New York, that that company had acquired an option for the purchase of all natural gas produced by the Union Oil Co. of California in the Wellington-Fort Collins district in excess of that required by the company for development purposes. The deal means that Fort Collins and other towns in the district probably will be supplied with natural gas for domestic uses at an early date.

The Cities Service Co. controls the Public Service Co. of Colorado which owns the electric and gas business of Denver, Boulder, Fort Collins and other towns in the State. A few months ago this company acquired control of the Poudre Valley Gas Co., the distributing company at Fort Collins. A new pipe line company is being formed by the Cities Service interests to handle the operation. J. C. Creveling, of New York, a special representative of the company, made the announcement after a conference with Clare N. Stannard, the local manager at Denver.

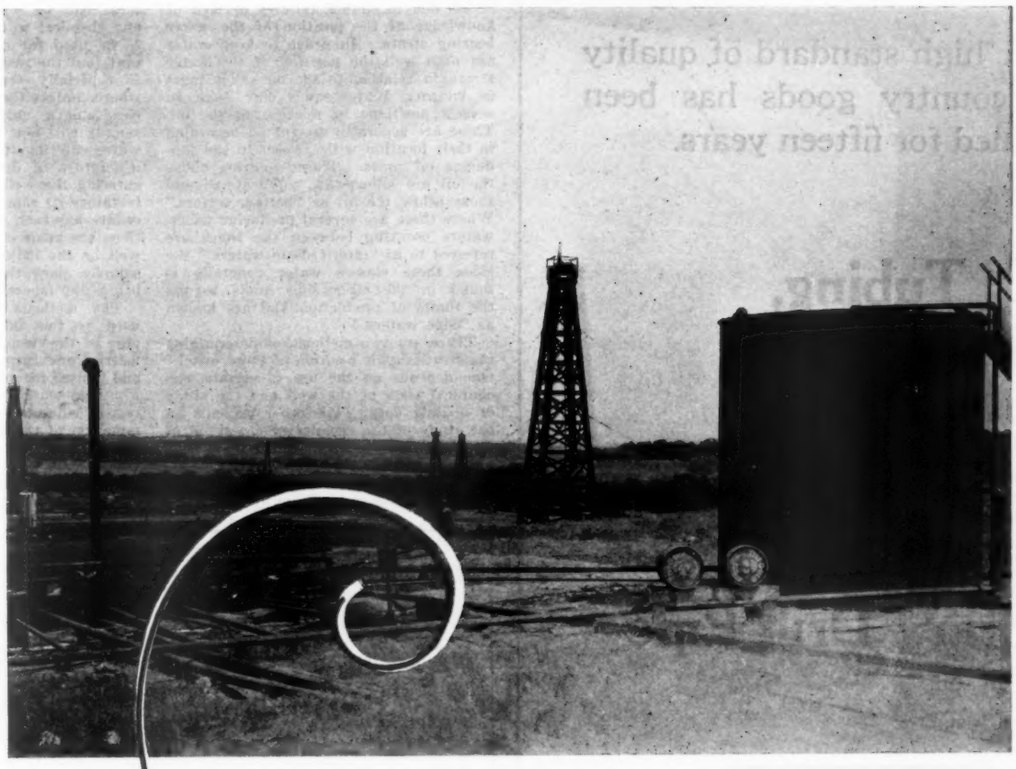
The volume of gas available for the market on the Wellington Dome is not definitely known as only two wells have been completed and the plans of the new pipe line company will be based to a considerable extent on the dependability and quantity of the supply as shown by additional development. The Union Oil Co. of California is at present using gas from the discovery well at Wellington for drilling operations. The well came in with an open flow of about 82,000,000 feet and has shown but little decrease in either volume or pressure but is yielding considerable oil along with the gas. The well beaned down to a hole the size of a pencil has been making about 1,250,000 feet of gas and 100 bbls. of oil a day. The Mitchell gasser is largely a duplicate of the discovery well and is also making oil with the gas.

OKLAHOMA JOBBERS TO MEET IN OCTOBER

OKLAHOMA CITY, Okla., Sept. 12.—A considerable increase in membership in the Oklahoma Oil Jobbers Association will be reported at the quarterly meeting in Oklahoma City October 15, according to C. M. Kinney, secretary. This was accomplished during the early part of the summer by activity of association officials and personal field solicitation of representatives of the association. This work will be continued into the fall.

The association's general unity of purpose has not been effected by price disturbances, Mr. Kinney says. "In that unity we are stronger than ever," he adds, "and we expect to make the October meeting a reflection of that strength. A good program will be arranged and an unusually large attendance is expected."

A majority of Oklahoma oil dealers, Mr. Kinney says, have accepted the terms of the new contract on discounts first offered by the Standard Oil Co. of Indiana. The Marland Oil Co. was one of the first to announce its acceptance of the terms, and it was followed by practically all of the major independents.



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Our "Tret-O-Lizer" shown above, placed on the flow line from the well, constitutes a complete plant for treating some emulsions. The little device simply feeds Tret-O-Lite into the flow line, drop by drop. On reaching the settling tank the emulsion promptly separates into pipe line oil and water. Do not attempt to install the Tret-O-Lite process without the expert advice of one of our field staff. The system must be *correctly* installed to accomplish thorough results.

The above photograph was taken on a lease near Hominy, Oklahoma, where the emulsion is 80%. Tret-O-Lite recovers every particle of the petroleum.

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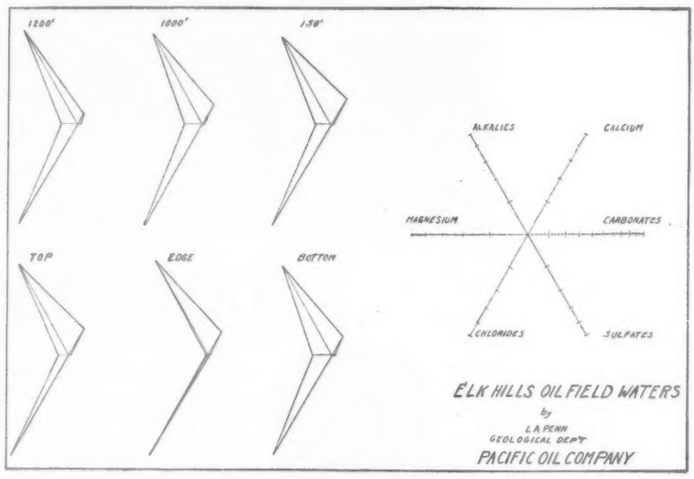
OIL FIELD WATER CORRELATION BY CHEMICAL ANALYSIS SHOWN

By L. A. Penn

The successful development of an oil field depends to a large extent upon the exclusion of water from the wells. Water can be excluded by careful drilling or by repair work on a well after it has gained access due to shutoff failures or lack of knowledge of the position of the water bearing strata. In order to keep water out of a well the position of the water strata in relation to the oil sands must be known. Water sands may occur in several positions in relation to the oil. These are generally designated according to their location with respect to the producing oil zones. Those occuring above the oil are known as "top waters" and those below the oil as "bottom waters." Where there are several producing zones, waters occuring between the zones are referred to as "intermediate waters." Besides these classes water generally is found in the oil-bearing sands beyond the limits of production and are known as "edge waters."

There are two methods of determining the stratigraphic position of these waters. One depends on the use of certain mechanical tests at the well and the study of drilling data. The other depends on the study of the chemical composition of the waters. It is the purpose of this paper to present briefly the methods used in correlating water sands by the study of the chemical composition of the waters stratigraphically. The study of water analyses for the correlation of waters is essentially a matter of comparison, the purpose being to find differences in the composition whereby the waters encountered can be separated into zones. In any chemical work where the results are to be used for comparison, it is important that the sampling be uniform. This is especially true of oil field waters where, unless the sampling is done with care and a uniform method used, the sample will not be representative of the water entering the well, but is apt to be a mixture of drilling water and water entering the well. To eliminate the uncertainty of sampling, the following procedure has been adopted. Chloride titrations are made on water drawn from the well by the bailer, until two consecutive samples show the same chloride content before the laboratory sample is taken.

The methods of analysis of waters used by this laboratory are two. The one is the usual combination of volumetric and gravimetric determinations and is used for analysis in the laboratory. For field work and rapid analysis a system of volumetric methods for the determination of the various radicles of volumetric analyses has been worked out. One of the principal objections to volumetric analyses has been that sodium was not determined and there was no check



and show the value of this method in solving water problems.

The examination of a cross section of an oil field will show a series of sands and sandy shales which offer little resistance to the movement of oil or water, separated by varying thicknesses of dense or sticky clays and shales. These clays and shales, being impervious, prevent the movement of the water and oil from one sand to another. Due to this separation of the water strata, it is to be expected that waters from different sands will show differences in chemical composition. Also that the water in any one sand will be of practically the same composition over a considerable area. In the study of the waters encountered in several fields of California these differences in composition are found and can be used as a basis for the correlation of the waters. The area over which waters can be correlated depends on the structural conditions found in a field and varies from single sections to whole fields.

Character of Waters

The changes in the character of waters from the normal ground water through the completely altered water as the oil zones are approached are well known, and, from a theoretical standpoint, are of value. With the advent of rotary drilling, however, these upper waters are rarely sampled, and to be of practical value the waters encountered must be separated in a much narrower range on the accuracy of the analysis. At the present time, we are working out a volumetric method for sodium which it is hoped will give sufficiently accurate results to overcome this difficulty.

Water Analysis

In the statement of an oil field water analysis, the system devised by Palmer is used where the water analysis is interpreted in terms of the properties given the water by the inorganic material dissolved in it. This system has the advantage of making comparisons easier and is also adapted to the graphic representation of analyses. In the graphs of type waters shown, the system devised by Tickell is modified to some extent. The scale used is logarithmic and the calcium and magnesium are plotted on separate ordinates. This is found to be an advantage, as in some fields the ratio of calcium to magnesium is important. It also has the advantage, especially in plotting the analyses of brines, of magnifying the differences in the minor constituents of the water.

The value of water analysis in the correlation of waters can best be shown by results obtained in the correlation of waters encountered in one of the oil fields, for which purpose the Elk Hills Field has been taken.

Elk Hills is the name given to a range of hills running in a northwesterly and southeasterly direction from McKittrick to Buena Vista Lake. The development

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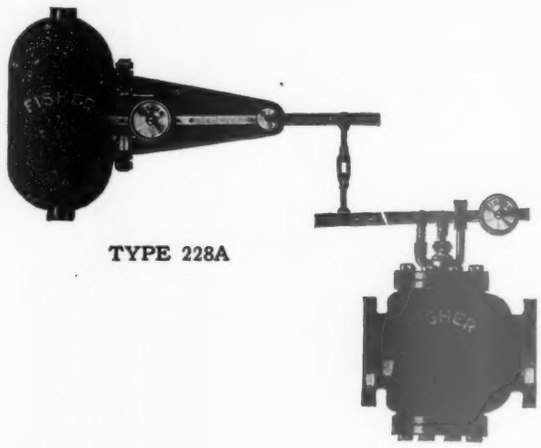

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of the fields has been in two sections, the west and the east end. In the development of the western portion of the field, water infiltration has caused very little trouble. In the eastern portion, six water sands have been encountered, which can be correlated by differences in their chemical composition. The logs of wells in this area show approximately 2,700 feet of alternating clays, shales and sands before the top of the oil zone is reached. In this formation four waters have been found at distances of 1,200, 1.000, 150 feet and just above the oil sands. The upper or light oil zone carries an edge water on the east and north sides of the anticline. The bottom water of this field is found a short distance below the lower or heavy oil zone.

Elk Hill Field Waters

All the waters found are brines varying in mineral content from 24,000 to 45,000 parts per million. In general character these brines are similar, but there are differences in characteristics that make a separation into classes possible.

The upper water found 1,200 feet above the oil has the following distinguishing characteristics:

Primary salinity 87%
Earths 6.5%
the percentage of calcium being less than magnesium.

The upper water found 1.000 feet above the oil zone is distinguished by:

Primary salinity 80%
Earths 9.7%
Calcium magnesium ratio 2.1

The water found 150 feet above the oil is distinguished by:

Primary salinity 77.5%
Earths 11%
and calcium magnesium ratio.....2.1

The lowest top water, found just above the oil zone is recognized by the following characteristics:

Primary salinity 80%
Earths 9.8%
and calcium magnesium ratio of 3.0

The edge water found in the light oil zone on the north and east sides of the field has these distinguishing features:

Primary salinity 86%
Earths 6.8%
and a calcium magnesium ratio of 13.0 or more.

The lower or bottom water of the field has the following characteristics:

Primary salinity 80%
Secondary salinity 18%
and a calcium magnesium ratio of 1.0.

Most of the water trouble encountered in this field has been caused by the two waters just above the upper oil zone. This classification of the waters has been worked out from a study of some 50 or more water analyses in addition to geological data of the field furnished by the field geologist.

TWO AMERICAN STATES PRODUCED MORE THAN ALL FOREIGN FIELDS

By James McIntyre

The average American oil man thinks of foreign fields in a hazy way. He knows where they are and has read much about them, but the details are likely to escape him. If asked whether Mexico or Texas produced the most oil last year he might have to consult the record.

As a matter of fact the comparative production of the foreign fields with that of American States is interesting. It brings out clearly the tremendous production of this country, but it also might cause a man to think how little the great world outside of the United States has been explored for oil and what immeasurable quantities of petroleum may be buried in Asia, Europe, Africa, South and Central America and the islands of the sea.

The Bureau of Mines recently issued its annual report on the gross production of crude petroleum in the United States for the year 1924, and with it the gross production of every oil producing country in the world for the same period. Using the Government's figures it is seen that the United States produced 713,-940,000 bbls. while the rest of the world produced 298,987,000 bbls.

The United States produced 70·5 per cent of the world's production in 1924.

California last year produced more oil than Mexico, Russia, Persia, Venezuela, Japan and Formosa combined.

The combined production of Oklahoma and Texas was greater than the combined production of the world outside of the United States.

Mexico is counted as a foreign field, but if we exclude it for the reason that its product is owned and consumed largely by Americans, it would leave only 125,449,000 bbls. in foreign production last year and this quantity was exceeded by the production of any one of three American States, California, Oklahoma or Texas.

We hear much of the Russian oil fields. Last year the production of Arkansas exceed that of Russia. Wyoming produced more oil than Persia. Kansas and Louisiana each produced more than the Dutch East Indies. The production of Iillinois was about the same as that of India or of Venezuela. The Rumanian fields were not in the same class with any of seven American States, and produced about half as much as Kansas. Pennsylvania and Kentucky were in the same producing class as Peru. West Virginia and Poland ran a close race, but West Virginia produced more than either Poland, Argentine, British Borneo or Trinidad. New York State produced more than Egypt, and New Mexico did better than Czechoslovakia. Tennessee and the Barbadoes ran a dead heat in production with 27 bbls. a day each.

The following table shows the relative standing of every petroleum division in the world in 1924. The figures for the year are taken from the Bureau of Mines annual, but are rearranged as to rank, and the average daily production of each division is added for the further convenience of the reader.

Relative Importance of Producing Divisions of the World in 1924

Division and Standing	Prod. 1924 Bbls.	Daily Av. Prod. Bbls.
1—California	228,933,000	625,500
2—Oklahoma	173,538,000	474,148
3—Mexico	139,497,000	381,139
4—Texas	134,522,000	367,546
5—Arkansas	46,028,000	125,760
6—Russia	45,312,000	123,803
7—Wyoming	39,498,000	107,918
8—Persia	32,373,000	88,451
9—Kansas	28,836,000	78,787
10—Louisiana	21,124,000	57,716
11—Dutch East Indies.	20,473,000	55,937
12—Rumania	13,303,000	36,347
13—Venezuela	8,754,000	23,918
14—Illinois	8,081,000	22,079
15—India	8,150,000	22,268
16—Peru	7,812,000	21,344
17—Pennsylvania	7,486,000	20,454
18—Kentucky	7,407,000	20,238
19—Ohio	6,811,000	18,609
20—West Virginia	5,920,000	16,175
21—Poland	5,657,000	15,456
22—Argentine	4,669,000	12,730
23—British Borneo	4,163,000	11,374
24—Trinidad	4,057,000	11,085
25—Montana	2,815,000	7,691
26—Japan and Formosa	1.959,000	5,353
27—New York	1,440,000	3,934
28—Egypt	1,122,000	3,066
29—Indiana	935,000	2,555
30—Colorado	445,000	1,216
31—Colombia	445,000	1,216
32—France	426,000	1,164
33—Germany	406,000	1,110
34—Canada	164,000	448
35—New Mexico	98,000	268
36—Czechoslovakia	75,000	205
37—Italy	45,000	123
38—Algeria	12,000	33
39—Barbadoes	10,000	27
40—Tennessee	10.000	27
41—Cuba	4.000	11
42—England	2,000	6
All others in U. S.	13.000	36
All others (foreign)	97,000	27
Total	1,012,927,000	2,767,560

BRITISH USE MORE GASOLINE

Consumption of gasoline during first six months of 1925 in Great Britain was 25 per cent over corresponding period of 1924, crude oil imports were up 40 per cent and together with refined up 15 per cent.

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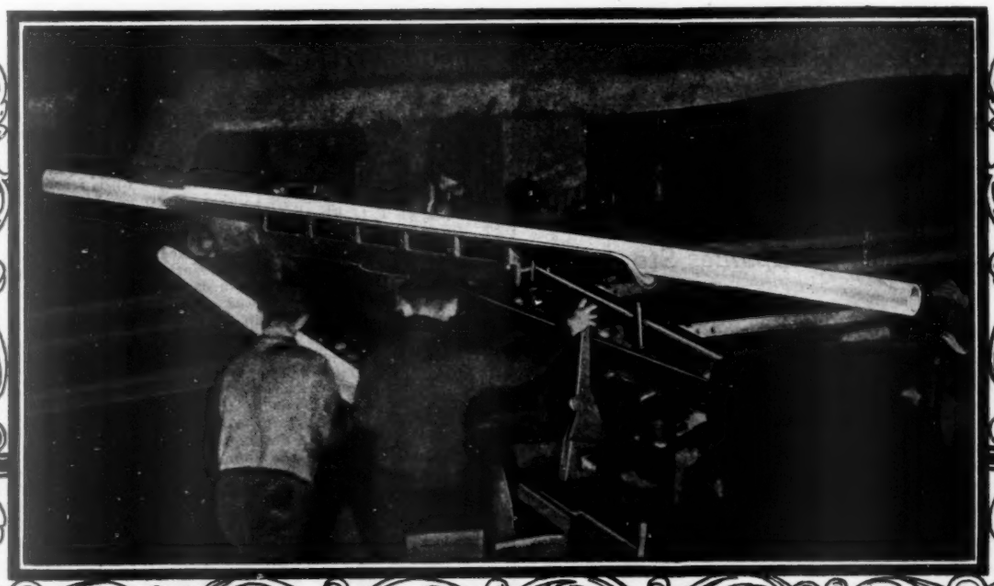

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EASTERN FIELDS

(Continued from Page 48)

dry. In Section 22, Pleasant Township, the Allegheny Oil Co.'s second test on the James W. Bigrum farm is a light pumper in the same formation. F. E. Lawrence completed a test on the Abram Schultheis farm, in Newport Township, Washington County, dry in the Mitchell sand.

Starting New Work

In Section 8, Rush Creek Township, Fairfield County, the Carter Oil Co. has started to drill a test on the Noah Rodamer farm. In Lot 14, Hanover Township, Licking County, the same company has started to drill No. 9 on the Jacob Vanderbark farm. It has completed some large wells on this farm and No. 9 is in a good location. In Section 14, Hopewell Township, Muskingum County, the company dropped the casing and plugged the hole at its test on the J. Brown farm. The hole has been abandoned and a new one started. In Newton Township, Licking County, A. J. Edmonds and others have started a second test on the Mrs. Ellen Forry farm.

In Lot 2, Alexander Township, Athens County, the Stewart Oil & Gas Co.'s test on the W. Louther farm is dry in the Berea grit. In Lot 24, Bickle & Co.'s test on the G. C. Lawson farm is a gasser in the same formation. In Newport Township, Washington County, the Oneida Oil & Gas Co.'s No. 24 on the J. C. Bosworth farm is a 2-bbl. pumper in the salt sand. In the same township, the Citizens National Bank of Marietta has a light pumper in the first Cow Run sand at No. 15 on the A. A. Noland farm. In Lawrence Township, Edward Becker & Co. have started to drill a test on the Philip Bauersock farm.

In Section 12, Knox Township, Guernsey County, the Ohio Fuel Gas Co. drilled a test on the W. R. Williams farm through the Clinton sand. It is a gasser good for 1,000,000 feet a day. There is more new work under way and starting in Guernsey County than at any time since the first of the year. In the southeast quarter of Section 19, Sutton Township, Meigs County, the Ohio Fuel Supply Co. completed and shot in the Berea grit a test on the D. B. Spencer farm. It is good for 2 bbls. a day and 200,000 feet of gas.

Licking County

In Newton Township, Licking County, Roy B. Decker & Co. completed and shot in the Berea grit a test on the Mary E. Weiss farm. It is a very light pumper. In Lot 7, Franklin Township, same county, Bebout Brothers' test on the Francis Dustheimer farm is dry in the Berea grit and has been abandoned. Just a small show of oil was developed. In Lot 15, Hanover Township, the Edward H. Everett Co. has drilled a test on the Mrs. Jerome Simpson farm through the Clinton sand. The hole has filled up 500 feet with fluid. The location is 5,000 feet north of production. One-half mile west of Hanover Village, in the same lot and township, W. W. and A. T. Wehrle have started to drill for a Clinton sand producer on T. G. Fleming farm.

Harry Cooper and others completed No. 4 on the M. Schuman farm, located in Section 16, Aurelius Township, Washington County, good for 5 bbls. a day in the Berea grit. In the northeast quarter of Section 6, Borth Township, Harrison County, the Ohio Oil Co.'s No. 11 on the Mary J. McLandsborough farm is a very light pumper in the same formation.

In Falls Gore Township, Hocking County, the Griffin Producing Co.'s No. 5 on the Dora Thomas farm is a gasser in the Clinton sand. In Section 27, same township, the tests on the John T. and Sarah Nutter farms are gassers in the Berea grit. In Section 32, Ward Township, the Evans Oil & Gas Co.'s No. 4 on the National Fire Proofing Co.'s property is a duster in the Clinton sand. In Section 4, Green Township, the Chartiers Oil Co. is drilling for a Berea grit producer at No. 4 on the Caroline Watters farm. In Section 28, Perry Township, the Ohio Fuel Supply Co. has a duster at a test on the E. D. Schaal farm.

Holmes & Licking counties continue to be the most active in development work. In the first named, Section 27, Monroe Township, the Empire Gas & Fuel Co. has a gasser in the Clinton sand at a test on the Uhler S. Davenport farm. In Section 36, Hardy Township, the East Ohio Gas Co. is due in the Clinton sand at a test on the J. R. Forgy farm. In Section 13, Bowling Green Township, Licking County, the Pure Oil Co.'s test on the O. Williams farm is a 10-bbl. pumper. In Franklin Township, J. T. Bebout has a light pumper at a test on the Anna Delong farm. Both got production in the Berea grit. In the same township, W. W. and A. T. Wehrle are due in the sand at No. 3 on the Savilla C. Parr farm. In Hanover Township, the Edward H. Everett Co. is due in the Clinton sand at a test on the Mrs. Jerome Simpson farm.

In Section 21, York Township, Morgan County, the Sun Oil Co. completed and shot in the Berea grit No. 7 on the James Souders farm. It is in defined territory and good for 10 bbls. a day. In the deep sand territory, Section 5, Hopewell Township, Perry County, the Empire Oil & Gas Co. drilled a test on the Murray Cooperrider farm through the Clinton sand. It is a gasser good for 500,000 feet. The location is 2½ miles southwest of the company's test on the W. H. Ridenhour farm. In Section 16, Ward Township, Hocking County, the Sunday Creek Coal Co. has started to drill No. 131 on its own property. In Lot 14 Madison Township, Licking County, Spindler & Co. are drilling for a Berea grit producer at No. 5 on the James McGonagle farm.

Starting Test Wells

The Logan Gas Co. is rigging up at a test on the E. P. Mizer farm, in Section 22, Bucks Township, Tusearawas Countl. In Section 2, Knox Township, Columbiana County, one-half mile north of production, Canton parties have started to drill a test on the Hoffman heirs' farm. In the same township, one-fourth mile northeast of Homeworth, David Maxwell and others are drilling a test on the Raymond Miller farm. In the same locality, F. N. Norris & Co. have started to drill No. 4 on the George Shively farm. All are expecting production in the Berea grit.

West Virginia

On Indian Creek, McElroy district, Tyler County, the American Oil Development Co. has completed in the Big Injun sand No. 4 on the C. J. Allen farm. It is a gasser. On Walnut Park in the same district. the Carter Oil Co.'s test on the E. Dillon farm is a gasser in the Gordon sand at a total depth of 2,950 feet. On Jakes run, Monongalia County, the South Penn Oil Co. has drilled No. 11 on the Simon Tennant farm from the Gordon to the fifth sand. It is a fair gasser in the lower sand.

On Hughes River, Murphy district, Ritchie County, the Leroy Oil Co.'s second test on the W. B. Cunningham farm is a gasser in the Big Injun sand. On the same river and same district, the Hughes River Gas Co. has the rig completed for a second test on the C. C. Bush farm. On Lowther run, the Murphy district, P. McDonough and others are rigging up at a test on the John T. Wyman farm.

In Battelle district, Monongalia County, Ball Brothers Co.'s test on the S. E. Kimble farm is a gasser in the fourth sand. In Clark district, Harrison County, B. W. Bowman and others have a Gordon sand gasser at a test on the W. C. Kesler farm. In Ten Mile district. the Raccoon Oil & Gas Co.'s test on the S. E. Swiger farm is a gasser in the same formation.

Gassers in Lincoln County

In Carroll district, Lincoln County, the Cambridge Gas Co.'s test on the J. D. Miller farm is a gasser in the Berea grit. In the same district, L. R. Sweetland's No. 6 on his own farm is a gasser in the same formation. In Guyandotte district, Cabell County, C. L. Ray has abandoned at 3,700 feet his test on the Henry Darnell farm. In New Milton district, Doddridge County, J. E. Trainer's test on the T. E. Holliday farm is a gasser in the Big Injun sand.

On Shawnee run, Lafayette district, Pleasants County, the Rice Oil Co. has made the location and is moving in a drill-

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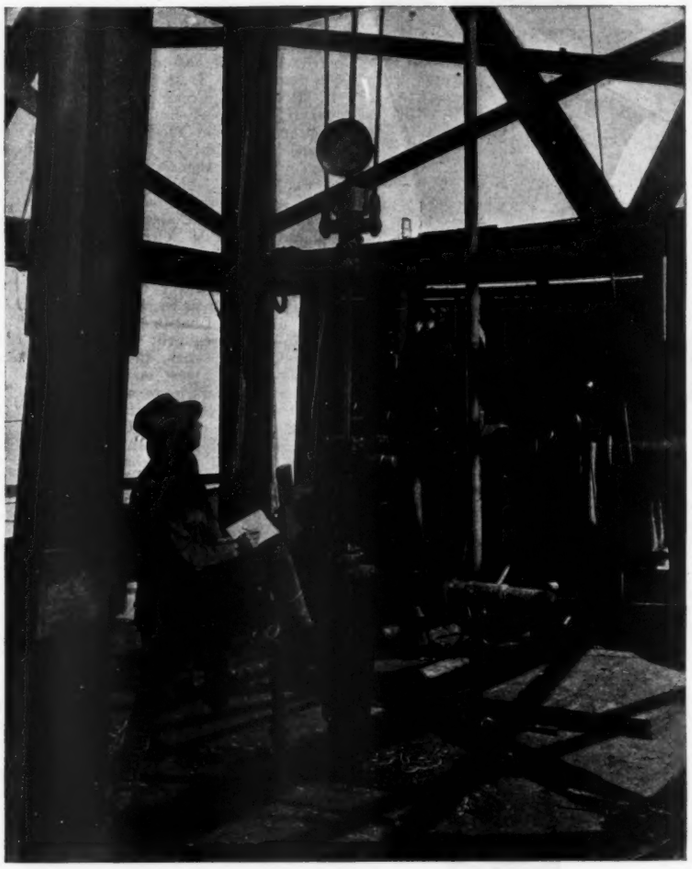

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ing machine to a location on the B. D. Hooper farm. In the same district, Smith & McCullough have started to drill on the A. J. Riggs farm. In Grant district, Ritchie County, the Hope Gas Co. has started to drill a test on the Luverna Hartman farm. In Skin Creek district, Lewis County, the Mud Lick Oil Co. has started to drill on the N. E. Bott farm.

Gasser Turned to Oil

On Tanner's Run, DeKalb district, Gilmer County, the Hope Construction & Refining Co. drilled No. 10 on the Drusilla Hardman farm, formerly a gasser, deeper into the Maxon sand. It is now an oil producer good for 5 bbls. a day. In Union district, Tyler County, D. E. Sanders has completed his No. 7 on the A. R. Williamson farm. It is a duster in the Big Injun sand. On Rush Run, Smithfield district, Roane County, Godfrey L. Cabot has the rig completed for a test on the J. M. Moore farm.

In Freeman's Creek district, Lewis County, F. G. Bish & Co. have drilled a test on the John West farm through all sands and dry. In Clay district, Wetzel County, the Carnegie Natural Gas Co. has a 3-bbl. pumper in the Gordon sand at a test on the Margaret Aberigg farm. In Church district, the Pittsburgh & West Virginia Gas Co. drilled deeper its test on the Amos Glover farm. It is a fair gasser in the fifth sand. The Grant Gas Co.'s second test on the Lenader Miller farm in Carroll district, Lincoln County, is a gasser in the Berea grit. In McComas district, Cabell County, the same company has drilled a test on the Thomas & Beacon Swann farm to a total depth of 3,200 feet. It is dry in all sands. In Barboursville district, U. G. Shipe has a gasser in the Big Injun sand at a test on the R. J. Armstrong farm.

In Ten-Mile district, Harrison County, R. T. Lowndes completed No. 3 on the J. H. Benedum farm. It is a gasser in the fifth sand. In Greenbrier district, Doddridge County, the Raccoon Oil & Gas Co. has a light pumper in the Big Injun sand at No. 6 on the R. E. Kelley farm. In Liberty district, Marshall County, the Manufacturers Light & Heat Co.'s test on the Catherine and C. S. Fry farm is a small pumper in the Gordon sand. On Woods Run, Paw-Paw district, Marion County, the Owens Bottle & Machine Co. has a light gasser in the Gantz sand at a test on the Ethel Davis farm. In Spencer district, Roane County, the Federal Oil & Gas Co.'s No. 27 on the Roberts, Pell & Newman farm is good for 10 bbls. a day in the salt sand. In Center district, Gilmer County, the Hope Natural Gas Co.'s test on the Lemuel Stump farm is a gasser in the Big Injun sand. The Hope Construction & Refining Co.'s test on the Robert Minney farm is a gasser in the same formation. The Ohio Fuel Oil Co.'s second test on the Viola Curry farm is showing a little oil and gas in the salt sand.

On Poca Fork, Scott district, Putnam County, 350 feet northwest of the Wolver Oil Co.'s test on the H. H. Pine farm, the Ohio Fuel Oil Co. completed and shot in the fourth sand a test on the H. H. Kerns lot and showing for a 5-bbl. pumper. No. 2 on the same lot is drilling. In the same locality, the Anchor Oil Co. started to drill a second test on the H. H. Swindler lot. The Wolver Oil Co. has started to drill a test on Lease No. 2 on the H. H. Pine farm.

Struck Pocket of Gas

In Union district, Harrison County, the Reserve Gas Co. struck another pocket of gas at a total depth of 6,734 feet at its deep test on the Chapman Smith farm. The tools were blown up in the hole and the wire cable broke, leaving 25 feet and the tools in the hole. They succeeded in recovering the tools and are now cleaning out, preparatory to drilling deeper. They have had several accidents at this well but all have been overcome.

In McClelland district, Doddridge County, the Carter Oil Co.'s second test on the R. J. Ash farm is a gasser in the Gordon sand. In Union district, Tyler County, Albert Neeley's test on the M. Stewart farm is a gasser in the salt sand. H. Galloway & Co.'s test on the A. H. Galloway farm, in Meade district, is a duster in the Big Injun sand. In the same district, the Hope Natural Gas Co.'s test on the W. I. Robinson farm is a light gasser in the Maxon sand. In McElroy district, the Wiser Oil Co. has shut down for gas at 2,050 feet on the John Mason farm. In Lafayette district, Pleasants County, the Bottom Oil Co. has started to drill another test on the Thornton Wagner farm.

In the Big Run Pool, Williams district, Wood County, Reed, Athey & Grant completed a second test on the George Henry farm, a very light pumper in the first Cow Run sand. In the Henderson Pool, same district, the Henderson Oil Co.'s No. 9 on the Drain heirs' farm is good for 5 bbls. a day in the first Cow Run sand. In Lubeck district, Batton & Co.'s second test on the William Munchmeyer farm is a very light pumper in the Cow Run sand.

In McKim district, Pleasants County, Howard Hall & Co. drilled a second test on the William B. Wright farm through all sands and dry. It has been abandoned. On Little Creek, Spencer district, Roane County, McIntosh & Miller's second test on the R. F. Hanger farm is a 2-bbl. pumper in the salt sand.

Starting and Drilling Tests

On a branch of Wilkes Creek, Walker district, Wood County, Jonas & Parks are building the rig for a wildcat test on the Ewing heirs' farm. On Grass Run, Ten Mile district, Harrison County, the Garrett-Lyons Gas Co. has started to drill a test on the W. Williams farm. In Union district, Marshall County, the R. J. Otto Oil Co. has started to drill on the R. J. Otto farm. In Liberty district, the Manufacturers Light & Heat Co. is building a rig on the W. H. and Margaret Downey farm. In Union district, Campbell & Cole are drilling a second test on the Campbell-Cole farm.

In Sherman district, Calhoun County, The Euclid Oil & Gas Co. has part of the rig material at a location on the M. A. C. Board farm. In Smithfield district, Roane County, Godfrey L. Cabot has rigs up for tests on the J. M. Moore and Keffer heirs' farms. In the same district, the United Fuel Gas Co. has rigged up and shut down for water on the G. W. Sarver and J. T. Pettitt farms. The same company has made locations on the Dearman, Carper and Ellis farms.

In West Union district, Doddridge County, C. H. Pigott is hauling the drilling outfit to a location on the J. S. Nester farm. In Ellsworth district, Tyler County, Lloyd Gorrell has started to drill on the Catherine Morrow farm. The Hope Natural Gas Co. is building a rig on the W. S. Barnes farm in DeKalb district, Gilmer County. The same company is building a rig on the C. M. James farm. Morris & Co. have started to drill on the Margaret Barker farm.

Southwest Pennsylvania

In Perry Township, Greene County, the Peoples Natural Gas Co.'s test on the Eli Fox farm is a gasser in the Bayard sand. In Springhill Township, the Manufacturers Light & Heat Co.'s second test on the Ferguson farm is dry in all sands. In the same township, the Peoples Natural Gas Co. drilled deeper its second test on the Caseman Brothers' farm and has a gasser in the Bayard sand. In Morris Township, the Carnegie Natural Gas Co.'s test on the Swart Johnson farm is a gasser in the Gordon sand. The Nineveh-Concord Oil & Gas Co. got a gasser in the same formation at No. 5 on the C. H. Andrews farm.

Scarcity of Water

The greatest handicap to operations at the present time in the eastern fields is the scarcity of water. In West Virginia many drilling wells are shut down, and the starting of others delayed for the same reason. Owing to the long drouth many of the mountain streams are dried up, and farmers in some localities are hauling water from long distances for domestic uses and the stock. It is estimated that more than 50 wells are shut down, and only those operating along never failing streams are able to keep running.

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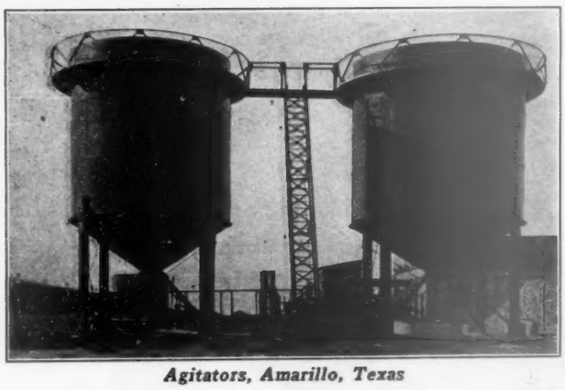

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APPROXIMATING REFINING PRODUCTION BY TESTS

(Continued from Page 22)

were necessary to eliminate materials going through the same stills more than once; to compensate for transfers of materials from one account to another, and to make allowance for finished products redistilled or intermediate distillates transferred direct to a finished product. (See Table II.)

The cheif correction met and the methods of handling are as follows:

(1) Certain averages and shortages are shown in the production records of each refined commodity. These are deducted or added to the gross as representing actual physical inventory losses.

(2) A finished commodity is often transferred back to the intermediate distillates from which it came. Such transfer is deducted to prevent double production. For example, in distilling gasoline from crude naphtha, a part of it is off color and is transferred back to crude naphtha to be distilled again. It will have been gauged as production both times, so must be deducted once.

(3) A transfer from one finished product to another is deducted from the former and added to the latter. This is simply to preserve the proper balance between commodities. For example, engine distillate is produced and later a portion is transferred to gasoline. As it is finally sold as gasoline, it must be transferred to that commodity in the account. These transfers are usually small and represent changing the material in a pipe line or tanks.

Intermediate Distillate

(4) When an intermediate distillate is transferred to a finished product, it is added to the latter. For instance, suppose some tops or crude naphtha was transferred to kerosene for some reason, this crude naphtha is in our laboratory, figures to be accounted for as finished production in the refinery, but when it is transferred direct without distillation, it does not appear in the gauged quantity of refined product and therefore must be added to it directly.

(5) Two of the minor intermediate distillates, known as S. S. bottoms and kerosene distillate, may show fluctuations in storage. If the storage of these materials increases during the month it means that some of the material that we have accounted for in the laboratory potential has not been converted in the refinery, into refined products; it is therefore necessary to prorate it into refined oil production and add it to the proper commodities. This proration is made on the basis of the refinery distillation on the remainder of the material during the month. The proration is made and deducted in case there is a decrease in storage. More recently laboratory analyses have been made of the month-end storage of these intermediate distillates and included in estimating the laboratory potential production, in which case it is not necessary to take them into account at all when calculating refinery productions.

(6) Finished products such as kerosene stock are sometimes redistilled to obtain a special cut or product. Since the various products from this redistillation are included in the various gauged totals of new products produced, it is necessary to deduct the amount redistilled to prevent double entry.

(7) Certain other operations are carried on at the refinery which are of a nature entirely different from the production of refined oils, and if by-products from these other operations find their way into the refined oil operations, they must be deducted from the product in which they are most likely to appear.

When these corrections are all taken into account, net refinery productions of gasoline, engine distillate, kerosene, etc., are obtained, and these totaled should give the same total as the total of the laboratory commodities, because the laboratory total has been determined from the difference of gauged inventories plus gauged receipts. In practice, the totaling of the refined commodities does not equal the total compiled in the laboratory calculations and the difference represents distillation and handling losses incurred.

To Barrel Basis

Having now brought our laboratory and refinery figures to the same barrel basis, we are prepared to determine the refinery factors for the various comparable commodities. It will be apparent that no attempt is made to show factors for, or more than merely carry the same totals for water contained in the crude, the factor would have to be "one", and everything is therefore carried on a dry oil basis. (See Table III.)

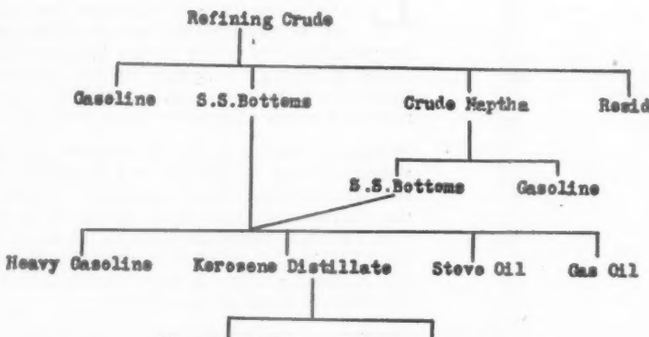
No factor is used for loss because the loss percentage shown in a laboratory distillation is not dependent on the quality of the oil or any of its inherent characteristics but varies with physical conditions and operation. It has therefore been the policy in this method to prorate the loss, found in the refinery determinations given above, against each of the gauged totals proportionately to the dry oil content.

After determining the refinery factors for each commodity, they are applied to the laboratory figures to bring them to an approximation of the refinery yield obtainable. That is, having factors which represent the ratio of refinery yield to laboratory yield, we may take any single laboratory distillation or series of distillations and by application of the proper factor to the proper commodity, obtain an approximate refinery yield.

In carrying out this method where several sources of crude materials are handled, the accounts are kept in balance vertically and horizontally. Horizontally the accounts must balance to the gauged totals, vertically to the refinery yield of products. After the application of factors it will be found that the vertical columns balance to the re-

FLOW SHEET

FIGURE I.



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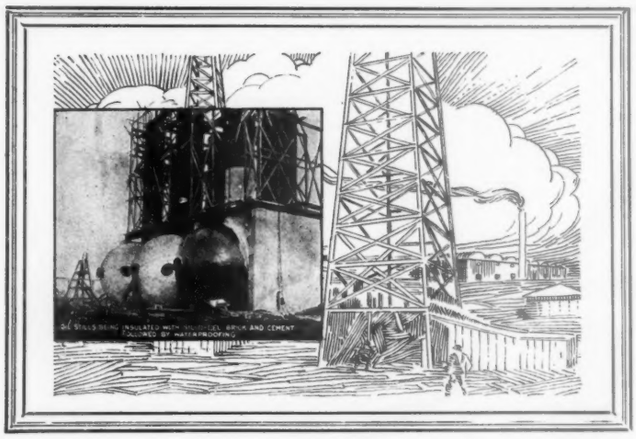

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HEAT INSULATION

The Importance of Contact in Insulated Construction

A half inch of air gap between a hot surface and the material with which it is insulated may mean the loss of half the benefits of insulation.

This air space almost invariably finds an outlet, and a direct air current over the hot surface is established. The heat penetrating the walls finds a ready course to the outer atmosphere in this air movement, instead of meeting a barrier to its further passage in an effective wall of insulation.

Insulation which does not "contact" with the hot surface it pretends to insulate is mockery. It can present a cooler surface to the atmosphere and still be much less efficient at conserving heat than insulation that is an integral part of the equipment. The air gap, even if successfully sealed against circulation to the atmosphere, itself can have no appreciable insulating value at high temperatures.

To install insulation where it will serve best—right against the hot surface—costs no more. Yet the importance of insuring a permanent contact in insulated construction is too often lost sight of. It is the business of Sil-O-Cel engineers to call your attention to important details of this nature when you are planning or installing insulation. One is near you. Feel free to call on him at any time.

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finery yields, but that adjustments are necessary horizontally to preserve the balance to gauged totals. These adjustments are prorated back to the various commodities proportionately to the total refinery yields. (See Table IV.)

After the refinery yields have been obtained, deductions are made for treating or filtering losses by per cent, and any handling losses incurred on products after treating and filtering are deducted in a similar manner.

Operating Expenses

In order to charge the proper operating expenses against the various stills, it is necessary to prorate the various commodities to the stills from which they came, proportionately to the production shown on the refinery production reports. (See Table V.)

From the financial end of the contract, the gross profits are calculated from the production of finished products and the average actual realization. The expenses deducted are for the cost of the crude at field market price, the cost of transporting the crude to the refinery, the cost of refining, the cost of putting up in packages of certain refined products, and the cost of marketing. The net profit so calculated is shared by the producer and refiner.

This system has operated satisfactorily for several years and has been found to be flexible and subject to the modifications incident to changing conditions or methods. No mention is made of the methods of laboratory analysis as these can be modified to meet special conditions. Whether the laboratory cuts are made on the basis of gravity or end point, they should be made to approximate the refinery products as closely as possible, and the apparatus and methods carefully standardized.

These factors have been found valuable in refinery control work because they become indicators of plant effiiciency, and the advisability of plant modifications can often be determined through their use.

GERMAN OIL CONCERNS FORM CONSOLIDATION

A sensation has been caused in Berlin commercial and financial circles by the amalgamation of the three large German oil firms of Deutsche Erdoel, Ltd., Deutsche Petroleum, Ltd., and Ruetgers Werke, Ltd. These concerns had been engaged in a bitter fight, and all previous attempts had failed to bring them together.

The Deutsche Petroleum Co. will take over the petroleum interests of the other two concerns, and for this purpose the directors at their next general meeting will propose the company's capital be increased from 24,000,000 to 35,000,000 marks.

The pressure of foreign competition is said to have finally broken down the barriers and compelled the three hostile companies to fuse in self-protection.

The Standard Oil and Royal Dutch interests, by virtue of less expensive sales and distribution organizations, were able to outbid the German companies and force to the wall a number of concerns which sprang up during the war.

Fearing a similar fate, the three largest and oldest concerns concluded their pact. Their individual coal interests and production of oil from lignite are unaffected by the deal, but all their direct oil production in Germany, importation of oil from abroad and sales and distribution organizations are to be combined.

WILL HALT DRILLING IN THE REAGAN FIELD

FORT WORTH, Tex., Sept. 12.—Upon completion of the tests being drilled by the two producing companies in the Reagan Field, drilling will be halted, according to the statement of Levi Smith, president of the Big Lake Oil Co. The wells being drilled are along the line of the two companies and drilling is by agreement. Big Lake has 15 operations in progress, including 4 which will not be drilled in for the time being, and Texon Group 1 has 9.

Mr. Smith does not think the peak of the field for the present will go much over 40,000 bbls., allowing for a considerable amount of natural decline, as present tests are on the way to completion.

He thinks considerable new productive territory may be added on the north and southwest, but the company plans no outside tests now. Mr. Smith believes the early estimates of the high productivity of the field, a minimum of 15,000 bbls. per acre, will be realized.

SYNTHETIC METHANOL PROCESS PERFECTED

The Haber-Bosch process of nitrogen fixation and the much-discussed new synthetic methanol, or wood alcohol, process are the most revolutionary achievements of the chemical industry of this century, writes U. S. Trade Commissioner W. T. Daugherty at Berlin. The Badische Aniline & Soda Fabrik owns and operates both. The same concern has to ts credit the discovery of alizarin or Turkey red (1869) and artificial indigo (1897).

While the production of synthetic methanol by Germany has been under way since the middle of 1923, knowledge of the fact had not been particularly disturbing to the American wood distillation industry prior to the importation this year of German synthetic methanol. (German official figures for the first five months of 1925 show exports of pure methanol amounting to 3,410 metric tons, of which 578 tons went to the United States, 746 tons to Great Britain, 490 tons to Russia and 469 tons to Switzerland.)

The basic patents from which methanol production was developed were taken out in 1913, but the war interferred with the perfecting of the process. Some friction has resulted from the fact that Georges Patart (French) also brought out a similar process quite recently. The technology of the German process is analogous to that of the Harber-Bosch ammonia process. Carbon monoxide gas and hydrogen are combined under pressure of 200 atmospheres and at a temperature around 400 degrees C. in the presence of a catalyst, probably finely divided pure zinc oxide. In the same manner, ammonia is synthesized by the Haber-Bosch process at a pressure of 200 atmospheres and a temperature of around 600 degrees in the presence of a catalyst (iron oxide activated with calcium oxide). The chemical engineering involved in both processes is the important factor.

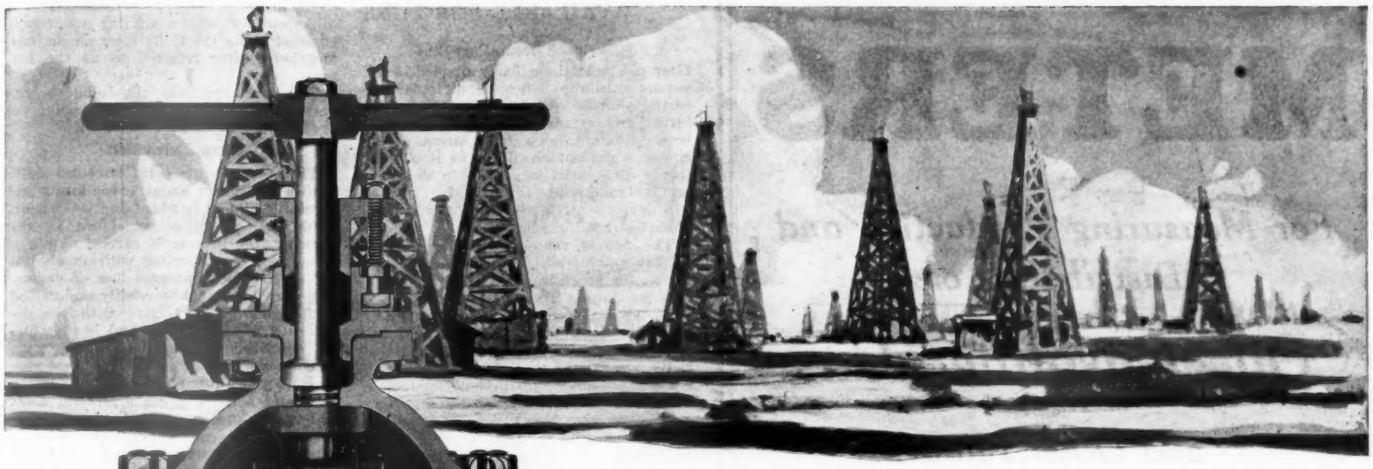
Production of synthetic methanol at the Leunawerke is increasing. It is reported, without confirmation, that present production amounts to 1,000 metric tons monthly and that it will be doubled by fall. The dye cartel will probably consume 5,000 to 10,000 tons in connection with its operations.

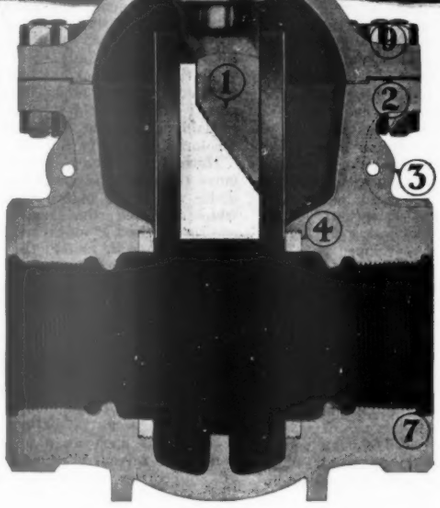
Another synthetic process which has aroused interest in certain quarters of the American chemical industry is being operated by the Badische in the production of butyl alcohol. As far as can be learned, this is based upon the reduction of aldehydes to alcohols by the use of a suitable catalyst. The chemists Steimmig and Ulrich apply this process also to the aliphatic oxyaldehydes and unsaturated aldehydes.

LOUISIANA REFINERY BUYS CALCOTE FIRM

SHREVEPORT, La., Sept. 12.—The Louisiana Oil Refining Corp. has extended its distribution system considerably by the acquisition of the property of the Calcote Oil Co., Inc., including the latter's chain of distributing stations. A. W. Calcote, president of the latter company, will remain with the Louisiana Oil Refining Corp. as manager of the chain.

Before organizing the Calcote Oil Co. in October, 1922, Mr. Calcote was connected with the sales department of the Louisiana corporation 11 years. The Calcote company has grown from 1 to 21 filling stations since its organization.





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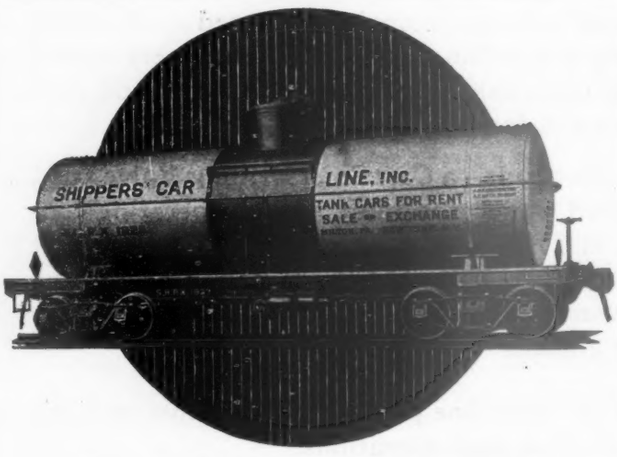

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MIXED BASE CRUDE AVAILABLE FOR LUBS

(Continued from Page 24)

filter aid, wherein a finely divided, solid, porous substance, such as diatomaceous earth, is mixed with a wax-containing solution and extracted with the wax adhering thereto in a filter press. This simple statement should make it obvious that a differential in gravity in the process is immaterial, thus making it also practical to extract wax of any nature from overhead stocks.

The feeling that a broad description of this process will be of interest is my reason for presenting this paper, without entering into a technical discussion.

So far as I know the process was new when we began work upon it and has been developed by us.

We have found that this filter aid may be almost any comminuted solid substance. This has led us to the discovery that a filtering agent may be made to serve a double purpose by first being used as a decolorizing or purifying agent at any temperature, and without removal from the oil after it has served this purpose, utilized as a filter aid for wax extraction at lowered temperatures.. I will, therefore, briefly describe the proces using a spent decolorizing material as a filter aid for wax extraction at lowered temperatures. I will, therefore, briefly describe the process using a spent decolorizing material as a filter aid, which will give a more complete description.

The method of decolorizing as herein referred to was also developed in California within the past few years.

Various Steps of the Process Described

While it is not necessary to an understanding of the process, I have prepared a diagrammatic drawing of the wax extracting apparatus used in a commercial plant. In this paper I will refer to the working parts of the wax extracting apparatus, assuming that those sufficiently interested to care to follow the details as to apparatus will be well enough versed in the art to understand the drawing. The treating apparatus is not shown in the drawing.

In operation the wax-containing lubricating oil stock is held in a storage tank, from which it is conveyed in predetermined quantities into a treating tank. This stock may be of any desired viscosity. It may be raw or untreated stock. It may be an acid treated stock neutralized with any substance. It may be an acid treated stock not neutralized, from which the major portion of the resultant sludge may have been removed by settling or otherwise.

Decolorizing

To the stock in the treating tank is added a predetermined required quantity of purifying agent, supplied from a bin through a pipe controlled by a valve.

This purifying agent may be any finely divided or comminuted substance such as Fuller's Earth, pyrophyllite, montmorillonite, or any of the well-known purifying or decolorizing agents. It may be either raw or processed. The processed material is of higher efficiency, but clays are found in California which may be used efficiently in the raw state.

The quantity of purifying material will vary widely according to its quality, to the nature of the stock under treatment, and with reference to the finished color desired; ranging from proportions of 5,000 gallons of oil to one ton of clay to 15,000 gallons of oil to one ton of clay.

The purifying agent is added during agitation, and while in intimate association is heated for the purifying reaction, which generally ranges from 250 to 350 degrees Fahrenheit. The heating is generally accomplished by circulation through a heater by taking suction from the bottom of the treating tank with a pump, discharging into and through the heater, from the top of which the stock is circulated back into the top of the treating tank. As soon as the required purifying action has taken place within the treating tank, the hot oil with the admixed purifying substance is transferred from the bottom of the treating tank by taking suction with a pump, discharging through a cooler, and as shown in the drawing, into a receiving or mixing tank provided with a stirring apparatus, situated under the Kelly filter single unit and hereinafter referred to as the hot press.

Treating apparatus not being shown, only working parts from this point on are referred to as in the drawing.

Wax Extraction

The stock at this point is cooled sufficiently to prevent undue vapor loss when a voiatile diluent is added and yet remain liquid. In practice, as shown in the drawing, the process is carried out in a closed system connecting with an absorbing apparatus to prevent loss of vapors. The drawing should be readily understood if followed in connection with the description of the process, and is therefore not described in detail.

The purifying agent as above used may be employed for the purpose of absorbing the sulfo acids and oth r mineral acids which may have been left in the oil after the acid treatment, operating to produce a neutral oil by adsorption and decomposition of the acid constituents. It may be employed for the purpose of decolorizing or clarifying oil that has had no previous treatment of any kind. It may be employed after an acid treatment and neutralizing process of any kind to further decolorize or clarify the oil.

Heretofore it has been necessary to remove the purifying agent from the stock under treatment before wax extraction, which requires considerable expense in addition to loss of stock and material.

If the stock under treatment is a heavy, wax-containing motor oil, it will be necessary to add a diluent in sufficient quantity to reduce the viscosity of the mixture to make it flow freely through the filter cake from the filter press. If the quantity of spent purifying agent present is not sufficient for wax extraction, it will be necessary to add a sufficient quantity, which preferably should be a prepared diatomaceous earth.

A diluent such as naphtha or other nonviscous solvent is added from a source of supply as shown in the drawing through a pipe into the mixing tank containing the stock under treatment in approximate proportions of 60 per cent diluent and 40 per cent stock. Larger proportions of diluent may be required.

While under agitation, an additional quantity of filter aid, preferably diatomaceous earth, is added through the dumping hopper of the hot press in sufficient quantity to make the total amount of filter aid, including the spent purifying agent present, one-half pound to the gallon of mixture under treatment. The diluent, oil stock under treatment and filter aid in the mixing tank are thoroughly mixed with a stirring device. When mixed a valve is opened, which allows the mixture to flow through a suction pipe into a pump, forcing it through a heat exchanger into a cold agitator, where an intimate mixture is constantly maintained.

Method of Operation

The mixture flows from the bottom of the cold agitator to a pump, and is discharged through a series of Gray chillers, which can best be described as of the ice cream freezer type, from which it flows to a pump and is discharged into and through a cold filter press, building up a pressure of approximately 100 pounds. This pressure may be lower, according to the stock under treatment, to the proportion of diluent used and to the quantity of filter aid; also, it may be much higher under certain conditions. The temperature employed will range from 10 to -10 degrees Fahrenheit, depending on the stock and the cold test required.

In the cold filter press the diluent and the stock, which are liquid at the temperatures employed, are separated from the solids and semi-solids, the diluent and liquid stock flowing from the cold press through a pipe into a receiving tank.

The filter aid, together with the wax adhering thereto, is deposited upon the internal filter surfaces of the cold filter press, forming a "filter cake" remaining therein. The cold filter press is then taken down, the filter cake is removed

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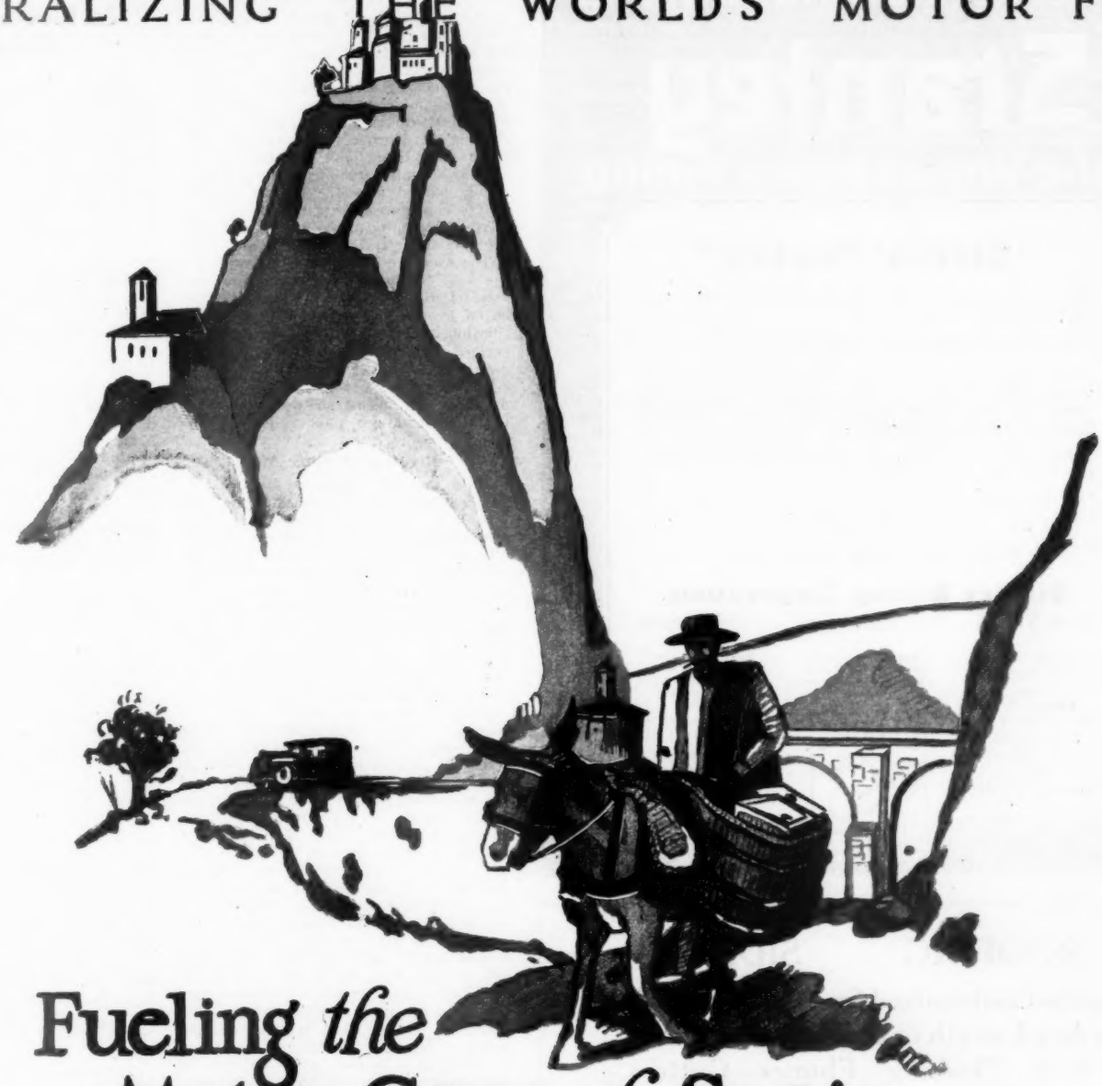

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therefrom, falling into a hopper, from which it is dumped into a mixer below.

The resultant cold filtrate flowing into the receiving tank contains the wax-free lubricating oil in solution with the diluent employed. The cold filtrate flows from the bottom of the receiving tank through a suction pipe to a pump which discharges it through heat exchangers, where there is a heat exchange between the outgoing cold liquid and the hot contra-current incoming stock from the hot press being charged into the system. These heat exchangers operate to chill the hot mixture incoming to the system and heat the outgoing filtrate from the cold press.

The wax-free heated filtrate flows from the heat exchangers through a pipe into a steam still, in which the diluent is driven off by the well-known method of distillation, and in which the wax-free lubricating oil stock is reduced to a required flashing point. The apparatus to accomplish this purpose is shown in the drawing, but being so well known it would not seem necessary to describe this step of the process.

Recovery of Filter Aid

After the wax-containing filter cake is dumped into the mixer below the cold filter press, a sufficient quantity of naphtha or other suitable solvent is pumped into the mixer, where a mixing is accomplished with the stirring apparatus shown, whereby the filter cake is put in a condition to be pumped. From the mixer it flows through a heater, in which it is heated to approximately 150 degrees Fahrenheit. The heated mixture flows from the heater to a hot agitator, in which it is agitated with a stirring device as shown for a sufficient period of time to dissolve substantially all of the wax from the filter cake, whereby the filter aid used in the process is freed of wax. When this required washing of the wax from the filter aid has been accomplished in the hot agitator, the mixture is withdrawn from the bottom of the hot agitator through a suction line with a pump, which operates to discharge the mixture through a pipe into and through the hot filter press. The filtrate, which is the solvent containing the wax washed from the filter cake, flows through a pipe into a receiving tank. The filter aid, free of wax, is deposited upon the internal surfaces of the hot press, forming the filter cake reaming therein. The hot filter press is then taken down, the wax-free filter aid is removed therefrom, falling into a hopper, from which it is dumped into the mixing tank below ready to be used for another cycle in the process or disposed of according to its value or nature.

If the filter aid used and recovered is a spent material from a decolorizing or purifying process, it will not be available for reuse without a further revivifying process. Under normal conditions a revivifying process is not profitable when a spent purifying agent is used as a filter aid, and the wax-free filter aid may be disposed of. If the filter aid has not been used for purposes other than wax extraction, it may be reused indefinitely without processing other than washing free of wax as described.

A preferred method for those not using the filtering and treating methods described is to use an especially prepared diatomaceous earth, which may be purchased on the market, as a filter aid, using the same material over and over again.

The filtrate from the hot filter press, which is the solvent with the wax in solution, is withdrawn from the receiving tank through a suction pipe by a pump, which discharges it into a steam still, in which the solvent and wax are separated by the well-known method of distillation. While the apparatus is shown in the drawing, a detailed description hardly seems necessary.

I have made this description as brief as possible, without describing obvious and well-known steps, assuming that those interested will be familiar with the practical operations and that the drawing will suggest and make clear the points not described if given proper study.

Record Shows Wells In Kevin Sunburst Field Long Lived

SHELBY, Mont., Sept. 12.—In its weekly review of field work in the Kevin-Sunburst area the Mid Northern Oil Information Bureau says:

There were 15 new wells started, 9 spudded in and 13 completed during the past week in the Kevin-Sunburst Field. Of the 13 completed, 12 were commercial oil wells and 1 dry hole. Two of the wells were over the 500-bbl. mark, the Queen City Oil Co.'s No. 15 Moore, CSL NW NW Section 4-34-2w, and the Big West Oil Co.'s No. 12 Allen, NW cor. SW NE Section 31-35-1w, the balance of the completions ranging down to not over 10 bbls. for the smallest.

The following figures on the Mid-Northern production are of interest and if other leases in the field have as small a rate of decline during any one year as this lease has had, it looks very promising for the life of the field. In comparing these figures it must be remembered that the wells are all within a short distance of the Ohio, Baker wells their No. 3, Baker having produced several hundred thousand barrels of oil from a sand that at the most is not over 10 feet thick, and it seems to prove that the Baker well has not effected production from the surrounding wells:

In August, 1924, the Mid-Northern wells averaged 192 bbls. a day, this average includes flush production from their Britton No. 2, so that it is a little higher than it should be for this comparison, but even then the figures show a very gradual decline. During the past year they have drilled one 16-bbl. well, which was completed in October, 1924.

The daily average production in barrels for some of the months of 1925, is as follows: March, 168; May, 167; June, 168; July, 165, and August, 168 bbls., showing that the total decline for the year can be considered as 16 bbls., if allowance is made for the flush from the Britton well. These wells have not been cleaned out during the year and all of them are making more or less water, so that apparently the water does not effect the production. This average is on 10 wells which makes this small rate of decline look just that much better.

There has always been a question about what the wells in the field would do in time, for several reasons, the two main ones being the thinness of sand and the fact that nearly all of the wells make more or less water but as the above figures are on what can be considered typical wells in the field, it looks very much as though this question had been answered, and greatly to the benefit of the field, because, if the settled production holds up in this manner leases are sure to pay out in time.

INCREASE IN CAPITAL

OKLAHOMA CITY, Okla., Sept. 12. Over $1,250,000 increase in capital stock invested in Oklahoma by foregn corporations related to the oil and gas industry is reported so far in September, making a total increase reported since July 1 of over $15,000,000 by such corporations. The largest increase just reported was by the Producers & Refiners Corp. of Wyoming, $6,332,508 to $7,029,868. The Margay Oil Corp. of Delaware reported an increase from $779,000 to $883,000; Comar Gasoline Co., Delaware, $401,840 to $545,440; Thompson & Black, Inc., Delaware, $160,726 to $171,357; Fan-Elva Oil & Gas Co., Delaware, $100,000 to $105,730; Arkansas Fuel Co., West Virginia, $25,000 to $269,558. Notice of dissolution as a corporation was filed by the Allied Refining Co. of Tulsa.

VACUUM LEASES REFINERY

Vacuum Oil Co. has joined the Czechoslovak oil cartel as lessee of the Kolin refinery.

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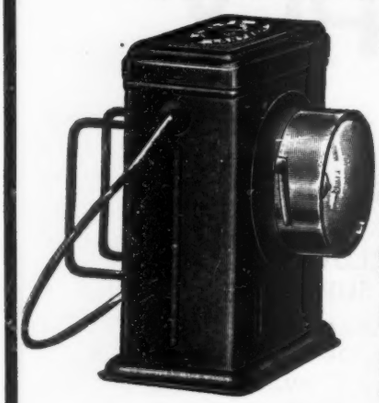

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NEW ENGLAND TURNS TO OIL BURNERS

(Continued from Page 23)

at reasonable prices, for good quality, and the supply guaranteed, there would be no great objection to this one supply of fuel.

"But the price of anthracite has increased 125 per cent in a brief span of years: the quality has not been as good as heretofore, and every year we are kept in fear of being unable to secure our fuel because of strikes and disagreements between the mine oprators and the miners. This condition of affairs always comes at the season of the year when we prepare to secure out winter's supply of fuel. This condition now has become chronic. The only alternative upon which both the operators and the miners agree, and to which the public has to agree, is the continual increase in price of anthracite. That, briefly, is an outline of the situation . . .

"Under the circumstances as outlined, there is apparently only one relief from a situation that has become intolerable, and that is: To refuse any longer to be the victims of this system of dealing and to use substitutes for anthracite. There are substitutes that have given splendid satisfaction."

New England States In

The conference was attended by Governor Ralph O. Brewster of Maine; John W. Storrs, fuel administrator of New Hampshire, representing Governor John G. Winant; John C. Sherburne, of Vermont, representing Governor Franklin S. Billings; Secretary of State Ernest L. Sprague of Rhode Island, representing Governor Aram J. Pothier; Edward W. Goss, representing Governor John H. Trumbull of Connecticut; John Hays Hammond, chairman of the Federal Coal Commission of two years ago; Congressman Allen T. Treadway and Louis A. Frothingham, State Senator Charles P. Howard, Representative Henry L. Shattuck, James J. Storrow, James J. Phelan, Eugene C. Hultman, John F. O'Connell and Mortimer Silverman, experts on various fuels.

New England has used anthracite for generations. Its coal sers are accustomed to this clean, well-nigh smokeless fuel and its markets are based on hard coal. Nevertheless, New England along with the West and Northwest, is being forced to turn to coke, oil and "smokeless" soft coals of West Virginia and to gas and electricity.

Governor Fuller's "Boston tea party," as the recent conference may be described, is fraught with great possibilities in the way of the use of oil as a substitute for anthracite, and it finds the oil industry in excellent position to meet all the demands made upon it. Furthermore, the revolt aganst anthracite because of the intolerable conditions brought about by the feuds between operators and miners has been gather.ng headway throughout the United States.

In 1923 about 29 per cent of the coal-using population of this country used hard coal. In 1925, according to current Washington figures only 17 per cent of that population uses anthracite. In two years this "natural monopoly" has lost 12 per cent of all coal users. Another army of its old customers had turned to soft coal, oil, coke and other substitutes.

Fuel Oil Use Declines

While domestic use of kerosene distillate and fuel oil is expected to show a big increase in the New England States, there has been a considerable falling off in industrial use of heavy fuel oil. Conversion from oil back to coal has been accomplished by a good many factories and utilities because of the higher price that obtained for fuel oil over the past year and to the depressed prices for bituminous coal. Some dealers state that continued falling off in this business is looked for.

An indication of the decrease in the use of fuel oil in substitution for coal in the New England States is the decline reported by the United States Geological Survey as regards public utility power plants. The total consumption of fuel oil by public utility power plants in New England follows:

	Bbls 1925	Bbls. 1924
January	174,148	179,264
February	117,192	195,586
March	70,952	145,854
April	51,948	125,158
May	48,532	110,558
June	54,524	99,215
July	53,617	96,242
August	.....	114,796
September	.....	110,853
October	.....	132,703
November	.....	167,732
December	.....	172,778
Total	.....	1,650,738

The biggest falling off is in Rhode Island, the figures for the month of July by States and compared with the same month a year ago, show as follows:

	July 1925 Bbls.	July 1924 Bbls.
Maine	2,691	4,472
New Hampshire	120	.....
Vermont	1,683	2,525
Massachusetts	31,185	25,347
Rhode Island	17,938	63,710
Connecticut	.....	188
Total	53,617	96,242

SALE OF CADDO LAND INVOLVED IN SUIT

PITSBURGH, Pa., Sept. 12.—Claiming that the sale price of oil lands had been misrepresented to them and that they had been defrauded of more than $231,250, suit to recover the amount has been begun in Common Pleas Court by Harvey S. and Coulter E. Glenn from J. C. Trees, M. L. Benedum and H. S. Grayson, affiliated with the J. C. Trees Oil Co. Trees is president of the company and Grayson general manager.

The statement of claim sets forth that Harvey S. and Coulter E. Glenn owned a one-eighth interest in the J. C. Trees Oil Co. Trees and Benedum each owned eleven-thirty-seconds of the concern and Grayson a six-thirty-seconds interest. In 1908 the firm purchased lands in the Caddo (Louisiana) oil field and after development they became very valuable. It is alleged that in the fall of 1910 the defendants sold their holdings to A. C. Bedford of New York for $6,000,000. It is claimed that only $4,150,000 was turned over to the company and that was represented as the amount received for the field.

The plaintiffs claim that the defendants fraudulently concealed $1,850,000 and did not return this amount to the company. They are suing for their one-eighth share in this amount, or $231,250, with interest from December 3, 1910.

GASOLINE CONSUMPTION IN FIRST SIX MONTHS

Gasoline consumption increased 27.63 per cent the first six months of 1925 over the same period of 1924, according to figures compiled by the American Petroleum Institute from reports made under provisions of gasoline tax or inspection laws in 29 States.

The figures show that the 29 States consumed 1,566,718,342 gallons of gasoline during the first six months of this year, an increase of 336,944,576 gallons over the consumption of the first six months of 1924.

According to the report of the institute, reprinted in the bulletin of the Western Petroleum Refiners Association, the Mid-Continent and Southeastern States, showed the greatest increase in consumption, the increase in the Mid-Continent area being 33.99 per cent and that in the Southeastern States 30.32 per cent. Consumption in Indian territory States increased 25.95 per cent; in Western States, 14.94 per cent, and in Northeastern States, 17.33 per cent.

LYLE DELLANEY DEAD

AUGUSTA, Kans., Sept. 12.—Falling into a vat of hot water, Lyle Dellaney, 26 years old, superintendent of the refinery of the Grant Oil Co. here, suffered burns which caused his death the next day.

"The Best for the Money Invested as Well as the Best That Money Can Buy"

- Excellent Joints.
- Greatly increased footage drilled.
- Elimination of Jar Fishing Jobs.
- Reduction of drilling risk.
- Three to five times as much service as other jars.
- Increased profits.

The following paragraph, which tells what one user thinks of SPANG Weldless Jars, we lifted in its entirety from a letter received recently from a Mid-Continent operator:

> "After our own experience and after hearing the testimonials of others, we feel that they are *the best for the money invested* as well as *the best that money can buy.* We have actually already received more wear out of these jars than an equal amount of money would buy in other jars; at the same time eliminating the hazard which a person *has to buy* in the purchase of welded jars."

Substantially, that is the same chorus sung wherever the SPANG Weldless Drilling Jar is used. Send your order to your own supply dealer. He has SPANG Weldless Jars in stock.

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That's why practically all leading producers have changed from "any ball" to Strom Balls—they know *they make good on any job*—anywhere—and they know the reason is that Strom Balls are scientifically built to do more than any other.

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Oak Park [*Suburb of Chicago*] **Illinois**

IS PRODUCER PAYING INCOME TAX UPON THE RETURN OF CAPITAL?

By W. A. W. Krebs

The methods prescribed by the regulations of the Treasury Department, under authority conferred by the Revenue Act, for the determination of taxable income from oil properties, necessitate first the determination of total recoverable reserves. These reserves divided into capitalized cost, value as at March 31, 1913, or discovery value, as the case may be, give a unit for depletion to be applied against each barrel of oil recovered during the taxable year, to arrive at the depletion allowance for that year. This depletion allowance, along with the other statutory allowances, is deducted from the gross income of the property, leaving as a balance the taxable income or profit.

The theory is that a determination shall be made of the number of barrels of recoverable oil and that each barrel so determined carries with its recovery an incerment of profit—excess of sale price over production costs, allocated overhead and depletion unit, which is taxable as profit.

Difficulties With Present Methods

There can be little quarrel with the theory as theory. The trouble arises in the working out in practical cases of this taxable income, and is due to difficulties in making an exact determination of recoverable reserves. In the earlier stages of the development of any property there is always a lack of that engineering data which is so necessary for the making of exact calculations. The youth of the wells requires the comparison, if not the total adoption of the decline curve of similar properties in the same general field producing from the same horizon, or even from the same sand in different localities. Very few wells are actually the same in their performances. Hence this procedure, to begin with, introduces considerable possibility for error in the estimate. Wells may greatly exceed or fall below the average, and yet it may be necessary to use composite curves which will mean average figures.

Factors and Results

The character of the natural resources—in this case—is such that it is subject to the effect of many varying factors, such as the nature and volume of expulsive forces; porosity, character and cementation; water encroachment; migration due to self-contained forces, or artificial conditions brought about by the character of the development program on this or adjacent properties, etc. These factors and conditions cannot be anticipated. The result is a figure for recoverable reserves that is constantly subject to correction with proper care and due consideration for all the factors by experienced engineers, and especially in properties where the conditions are fairly normal, a very fair approximation may be worked out. But even in the more or less ideal case the figures are subject to review by the departmental engineers whose judgment may not be in accord with the engineer in the field with the result that injustice may be done, be that judgment ever so honest in its intent.

Reasons for Change

There is at present a decided effort being put forth in the direction of tax simplification. This being the case, why not simplify in this matter by getting down to the fact that the oil producer does not and cannot make a profit until he has secured the return of his investment.

What reason is there that compels us to attempt to determine profits by the barrel? It is a fact that a producer buys his property speculating on the amount of oil, if any, which it will produce, pays a certain consideration for it, and until the full amount of that consideration plus the capitalized development has been returned through the sale of production he has not received a profit, and further, there is no real assurance that he will ever have the investment returned, by reason of the many and varying factors which enter in.

It seems to be the theory that the depletion of natural resources must be calculated on the unit of delivery basis, regardless of the character of the particular resource. Oil and gas are incapable of exact measurement by reason of the fact that they are migratory and are secreted in the earth. Timber may be cruised; coal seams may be measured; but the drill hole permits the measuring of oil and gas only while production is in progress and the estimation of exact recoveries is never complete until the last recoverable barrel has been produced.

Illustrative Case

As an illustration of what may occur under the present method let us take the case of an individual operator. He has bought an oil property; has several wells completed and producing over a period of say three years. The recoverable oil has been calculated and used for the determination of taxable income for the first year. The second year it was found that decline was greater than was anticipated by the first calculation and a necessary correction was applied for the second period. After the third year we find the wells have gone to water and are producing so little oil as to be unprofitable and therefore forcing abandonment. That portion of original cost and capitalized investment which has not been returned through the depletion allowance is now charged off. Where does the operator stand in the matter? Perhaps he has had considerable other income in the former years and the so-called profit per barrel, calculated by the method now in use has but served to force his taxes into the higher surtaxes. Hence he has paid tax to the Government for two or three years on a portion of the income from this property at a rate that is high by reason of these surtaxes. In the meantime, tax rates have been lowered. He takes his charge-off on the abandoned property at the lower, current rate of the year in which abandonment is accomplished. He has then paid tax on a portion of the return of his investment, and the Government has had the use of the money which he paid in, without recompense to him in the way of interest, for two or three years.

Where the property is corporate owned and a similar comdition arises, forcing abandonment prior to the return of the investment through the calculated depletion unit, the effect is much the same. The main point of difference, of course, being in the fact corporations are taxed at a flat rate and are not subjected to the surtaxes, and the present rate has been stable for several years. But what tax revision may do to rates cannot be foretold. As it now stands, large amounts of tax are reported and paid by the corporations on theorized per barrel profits, when later these taxes are proved to have been paid on the return of the investment—liquidating income—and interest on the tax thus collected is not forthwith coming. Can any one say such conditions are fair to the producer of crude?

Government Protected

You may say that in the event of a period of tax rate increase, the operator would have the advantage over the Government. Possibly so, if the law was not amended to protect the Government from this very thing, as is usually done. But even so, the Government would have free use of the money so paid in—all based on the theory that what has since proved to be but the return of investment, was profit!

In those cases where the oil property fully pays out the investment, corrections may be applied from year to year with little, if any, damage to the taxpayer. In fact, the present method may be help-

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The Look Box

The FOURTH of a series of questions asked by the Brown Instrument Company and answered by 107 Refiners. Watch this space.

Overcoming "Fighting" the Stills

Question: Would the installation of instruments act as a check on the men and the equipment and prevent still-men "fighting" the stills?

Answers—84% of the Refiners answering this question said "YES." Among the comments of these practical men were: "We think the still-man would welcome instruments, if they would assist him in his work;" "It should make the still-men more careful and anxious to accomplish the best results."

However, the following remark shows that it is not logical to expect the equipment to accomplish good results unaided—"Yes, if men are previously interested and 'sold' psychologically."
But the following sums up the matter, "Recording instruments quickly eliminate the erratic and poor fireman."

[Perhaps there is a suggestion for you in these opinions. Watch this column and if you want specific information or catalogs, just write us.]

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ful to the extent that it permits the payments of taxes (where real and later so prove to be) by installments, as it were. But in many cases under the present system great injury may be done. Certainly the Government, because of the vast number of properties from which taxes are collected, can much better afford to play the law of averages than can the individual operator with but several properties, any or all of which may not be average properties.

When the taxpayer buys a "property" he does not buy "so many barrels of oil in the ground" as this latter cannot be exactly determined in advance. He pays a set price for his gamble on the property and then expends, perhaps, several hundred thousand dollars in bringing this property to the production point. His profit (taxable or othewise) cannot begin until his investment has been returned. He cannot, by the rule of reason and common sense, figure he has made one dollar of profit until his money has been paid back. The unit for the determination of taxable income should be based on the "property" and not the ' barrel."

Some operators may object to this on the basis that they would pay no taxes on the income from this property until it had fully paid back the investment, and then the entire excess of sales over producing and allocated overhead costs would represent profits, and these larger tax payments would come at a time when the "flush production" was off. However, most operators would have other 'flush" on which no tax was being paid, as an offset. Form "O" would be greatly simplified, as no calculation of recoverable reserves would be required or necessary for tax purposes.

Certainly the producer of crude oil should, at least, be given an election between this and the present method, even as the contractor has, under the present act, the option of deferring taxes on uncomplete contracts.

CENTRAL WEST

(Continued from Page 50)

which is H. L. Ogle and others' second test, 600 feet from the north line and 900 feet from the west line of the John Stable farm, in the northwest quarter of the southwest quarter of Section 32, Harrison Township, and almost midway between the Payne Field proper and the new development across the Indiana State line in Maumee Township, Allen County, near the town of Edgerton, a few miles out of Fort Wayne. The well is reported showing for around 25 bbls., with top of sand at 1,047 feet and oil at 44 feet in, which is the second pay sand in the field.

Dillbone and others drilled in a wildcat well 660 feet from the north and east lines of the Barney Juetter farm, in the southeast quarter of Section 35, Washington Township, Mercer County, 3 miles north and 3 miles east of Fort Recovery, and 5 miles south and 6 miles west of Celina. This well struck the top of Trenton at 1,100 feet and drilled 60 feet in the sand, showing a gas volume of approximately 200,000 feet. No indication of oil was encountered by the drill.

About two miles north and the same distance west of Celina, the Home Banking Co., Account 51, drilled a 12-bbl. pumper in the second test, 2,000 feet from the south line and 250 feet from the west line of the Emmett T. Carpenter farm, in the southwest quarter of Section 22, Hopewell Township, Mercer County.

About 14 miles east of Toledo, 1 mile east of the end of the Brown Road, Henry G. Gladieux drilled a test in the southwest corner of the H. and W. Fleitz 80 acres, better known as the Mose Perry farm, in the southwest quarter of Section 7, Jerusalem Township, Lucas County, and between Crane and Crabbe Creeks, which showed a production of 2 bbls. Top of Trenton was found at 1,340 feet and oil at 51 feet in. This is pure wildcat and makes much of the eastern section of that township look worth the drilling. The loca-

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In All Fields

cation is about 1½ miles southwest of Shepardsville and one-half mile east and a mile south of New Jerusalem, in the onion ground section of eastern Lucas County. The Ohio Oil Co. has recently been completing some fair producers on the R. H. and M. A. Eck farm, Section 35, same township, and the new well is approximately 2 miles east and about the same distance to the south from the Eck lease.

Elmore Field

In the Elmore Field, in Harris Township, Ottawa County, the Ohio Oil Co.'s No. 3 well, 680 feet from the south line and 200 feet from the east line of the John H. Mercer farm, in the northeast quarter of Section 19, showed a flush of 12 bbls., with top of sand at 1,265 feet, and 104 feet in the sand to a total depth of 1,369 feet. In the same vicinity Sherman Richards and Nieman's No. 10 well, 1,200 feet from the north line and 200 feet from the east line of the H. W. Nieman farm, Section 18, pumped 14 bbls. Top of sand at 1,284 feet and drilled 63 feet in the sand.

About 4 miles northwest of Lima, the Ohio Oil Co.'s No. 6 well, 250 feet from the north line and 1,250 feet from the east line of the Joseph Brenneman farm, in the northwest quarter of Section 9, American Township, Allen County, pumped 5 bbls. Top of sand was at 1,226 feet and oil at 86 feet in. In Spencer Township, same county, 3 miles north and 2 miles west of Spencerville, the Short Fork Oil Co.'s No. 3 on the southeast corner of the Edward Reynolds farm, mapped as the C. G. Keller farm, is credited with a production of 10 bbls., with top of Trenton at 1,176 feet and oil at 50 feet in. This is in Section 27.

Three miles north of St. Marys, in Salem Township, Auglaize County, E. E. Lacknett drilled a test in the northeast corner of the Joseph Whitney farm, in the southeast quarter of Section 4, and secured a 15-bbl. pumper at the start. This well should bring about some new work in that area.

There are prospects of new work starting in various sections of the Lima Field. One of the favored spots is now along the south shore of Lake Erie, in Oregon and Jerusalem Townships, where the Niles property, covering a large acreage, looks inviting, as well as to the south in Ottawa County, in Benton, Allen and Clay Townships, to say nothing of Salem and parts of Harris Townships yet untested. Henry County, to the west of Wood County, along with Definance and Putnam Counties, all on the north side of the old Lima Field, have bright prospects.

Central Ohio

In the Central Ohio Field proper, but one completion was reported for the week, a dry hole drilled by the East Ohio Gas Co., on the Edwin Smith farm, Lot 31, Hardy Township, Holmes County.

In the Bremen Field, in Fairfield County, some good gas wells are reported, the best, the Hufford Oil & Gas Co.'s No. 1 on the George Groff farm, to the northwest of town, which showed a volume of 2,000,000 feet. This well is about a half-mile away from the good gas well recently drilled on the Kelsey farm.

Indiana

The old Trenton Rock Field of eastern Indiana failed to report any completions. In the Oakland City Field of Logan Township, Pike County, the Wiser Oil Co. drilled its No. 2 well, 200 feet from the south line and 665 feet from the west line of the Rumble-Wilson farm, in the southwest quarter of Section 13, and reported at 15 bbls. flush. Top of sand was at 1,312 feet and 29 feet in, to a total depth of 1,341 feet. This lease was purchased by the Wiser Co. in June, and consists of 21 acres, with one well, and the new well makes the lease almost certain for production on any part. The oil comes from what is known as the Oakland City sand, and is located near the property operated since 1922 by the Wiser Co. on the Phillips lease. P. C. Andrews is drilling No. 6 on his Earl Loveless farm, Section 14, same township.

In the Sullivan Field in Gill Town-

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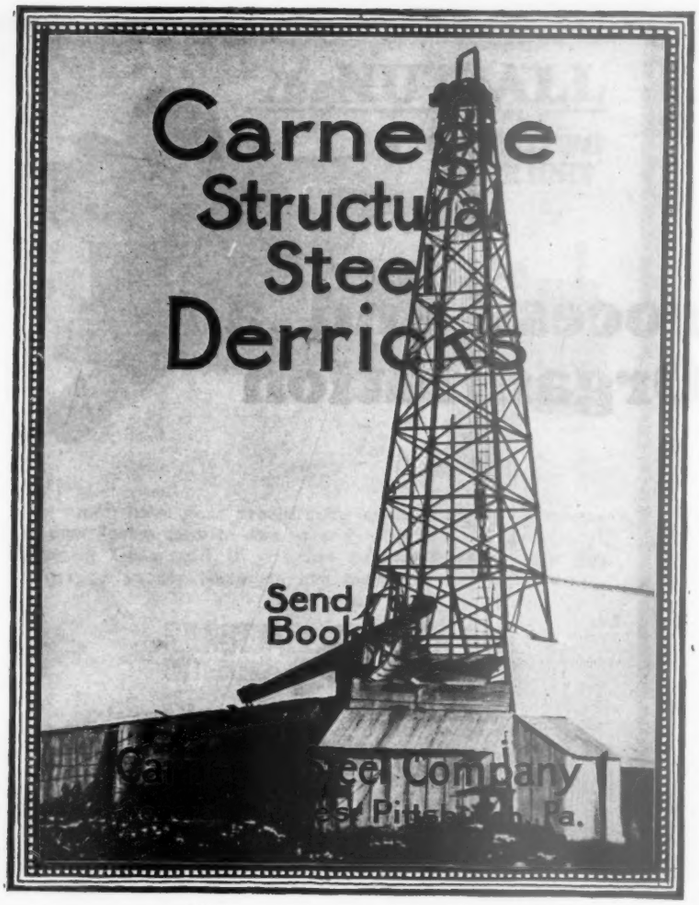

ship, Sullivan County, Fred Bays drilled in a test on the southeast corner of the W. Veat farm, in the southeast quarter of the southwest quarter of Section 26, and secured a light gas producer at a depth of 582 feet.

Illinois

The new gusher drilled by Risley and others on the S. J. Stillwell farm, in the southeast quarter of Section 1, Wabash Township, Wabash County, has created quite an excitement in that part of Illinois, as it is the best well yet reported for several years in the Allendale area. The well finding its pay at a depth of 1,389 feet puts it in a class by itself, being the shallowest hole where good production has been found in the county. The well is out by itself, to the northeast of Allendale, where no one expected to find a well out of the ordinary, and shows that the sand rises toward the Wabash River, which is about 2 miles east of the new gusher.

It would be surprising if the real Wabash Field has been found by this test. Since about 1911 wells have been drilled in various sections of Wabash Township, and up to this time the field has proven a mystery, for a well can be drilled and a good producer found, but seldom are many producing wells found around the good ones. The field is of a spotted nature, and the best two pools in Wabash Township, so far developed are the Biehl sand pool and the Wright Pool, but each covers only a small area.

Every available acre anywhere near the new well has been taken under lease, with prospects of the drilling of a number of wells. It will not take long to determine whether much of a field is to be found.

In Dennison Township, Lawrence County, to the north of Wabash County, the Ohio Oil Co.'s No. 8 well, 800 feet from the north and west lines of the Edward Meigher farm, in the southwest quarter of Section 5, showed a flush after shot with 40 quarts, of 32 bbls. The pay was found in the Kirkwood sand at from 1,565 to 1,605 feet, but drilled to a total depth of 1,829 feet, in hopes of finding a pay in the McCloskey sand.

KENTUCKY-TENNESSEE

(Continued from Page 50)

1 T. B. Miller, near Haynesville, drilling at 250 feet; Leonard and others' No. 1 James Miller, spudding; C. E. Daugherty's No. 1 Ira Crowe, dry in Jett and being continued on down to the Barlow; Wood Oil Co.'s No. 1 C. D. Swizer, spudding; I. N. Harkless' No. 1 J. S. Huff, progressing at 550 feet; Patton's No. 1 J. A. Coombs, plugged and abandoned; Leeper Oil Co.'s No. 1 Veach, drilling at 140 feet; Pennsylvania-Indiana Oil Syndicate's No. 9 Jess Swope, spudding; Chicago Petroleum Syndicate's No. 3 Ira Crowe, rigging up; White & Nicklin's No. 5 Burdette, drilling at 600 feet; C. E. Daugherty's No. 7 Lucinda Crowe, getting ready to spud; Kentucky Oil Syndicate's No. 19 Amanda Stewart, shut down at 150 feet; Leeper Oil Co.'s No. 4 H. D. Brown, drilling at 200 feet.

Other Completions

In Allen County, Cockrill & Holland's No. 4 Cockrill, 1 mile south of Scottville, is reported good for 15 bbls. at 293 feet; No. 5 is dry at about 300 feet; Ziegler and others' No. 2 Virgil McGuire, Satterfield Pool, 3 bbls. at 385 feet; W. P. Harley's No. 5 Oliver, Gainesville Pool, 5 bbls. at 203 feet. Shale was from 113 to 158 feet and the sand from 183 to 203 feet.

A rank wildcat test drilled by J. A. Beam on the Major tract, 6 miles from Leitchfield, in Grayson County, is reported dry and abandoned at 1,085 feet, 146 feet below the black shale.

In Cumberland County, Thrasher and associates' No. 1 Bill Page, 1 mile southeast of the production on the Dickens farm, was reported dry at 600 feet. This test may be carried on down to the Modoc sand below the Pencil Cave later.

The Morris Petroleum Co.'s No. 3 Hunter Short, on Galloway Creek, is shut down for orders at 750 feet. It is

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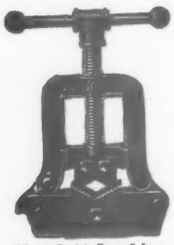

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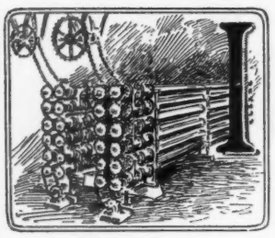

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planned to drill it to the 1,000-foot level.

New Locations in Adair County

Wood, Haislet and others are spudding in No. 1 Morgan, 14 miles south of Columbia, just over the Adair County line in Cumberland County. It is about 1,800 feet north of the old Gabbert gusher drilled in 1868. These same parties have made locations for No. 1 Guthrie and No. 1 Bledoe, in Adair County. It is reported Louisiana parties have staked off several locations in southern Adair that will be drilled as soon as drilling rigs can be obtained.

Eastern Division

Three gas wells with an output of 3,703,000 feet of gas daily, four oil wells with a flush of 19 bbls. and one dry hole is the record of the eastern end of the Blue Grass State during the week in review.

In the gas territory of Owsley County, D. J. Johnson got the banner well on the Gathright Land Co.'s property, estimated good for 2,151,000 feet of gas from the Corniferous sand at an approximate depth of 1,350 feet. It is 450 feet from the H. Simmons farm and 250 feet from the Joe Creech tract of the Petroleum Exploration. The Petroleum Exploration is credited with two gassers in the same immediate neighborhood as the Johnson well, No. 1 Bert Lynch, estimated good for 823,000 feet of gas, and No. 1 Addison heirs, good for 729,000 feet of gas at about 1,350 feet in the Corniferous. These wells prove there is an excellent gas pool in that region and will no doubt be a stimulant to future work.

Johnson-Magoffin Counties

In the South Weir Field of Johnson and Magoffin Counties, the Paintsville Oil Co.'s No. 6 Dan Harmon, District No. 25, made 5 bbls. on jack from the Weir sand at an approximate depth of 900 feet.

The Somerset Oil Co.'s No. 9 James Love, in District No. 24, is estimated good for 4 bbls. on power from the Weir sand. In District No. 31, the Bed Rock Petroleum Co. completed its initial well on the H. Patrick farm for 5 bbls. in the Weir formation.

Wolfe County

The Petroleum Exploration's No. 9 on its 600-acre tract, near Torrent in Wolfe County, is pumping 5 bbls. from the Weir sand. No. 10 is spudding.

Near Elk Fork of Rush Branch, in Morgan County, the Petroleum Exploration's No. 1 on the Clearfield Cannel Coal Co. property is reported dry. The Petroleum Exploration has a large block of acreage in this section of Morgan County and will probably drill several more holes in order to give it a thorough testing.

CALIFORNIA FIELDS

(Continued from Page 40)

wells were recently finished on the Hellman property and it is quite possible another hole will be started soon. The Marland's deep test, No. 7 Dominguez, has not shown anything that looks like a deep sand and it has been placed on the doubtful list. As very few wells secure production after passing 5,000 feet, abandonment as a dry hole would not be surprising.

Torrance

The Chanslor-Canfield Midway Oil Co. has been finishing new wells quite regularly at Torrance during the past month or two and it appears on this week's completion list with another well to its credit. The successful completion was No. 69 Del Amo, finished at 3,545 feet. It started off flowing 130 bbls. of 19.8 gravity oil which cut 10 per cent but it is cleaning up quite rapidly and will undoubtedly show a corresponding increase in production after it has been on production for a day or two. The company's next completion will probably be No. 33 Del Amo, now at 3,241 feet, followed by No. 28 Del Amo, now at 2,980 feet, and No. 53 on the same lease at 2,992 feet. No. 47 Del Amo and No. 88 Torrance, recent spuds, are just getting under way.

The Shell finished a 241-bbl. pumper when No. 5 Frenger was put on the beam at 3,600 feet after being finished with a 6¼-inch oil string carrying 510 feet of 60-mesh screen. The oil tests 16.2 degrees and shows a cut of 3 per cent. No. 4 on this lease is scheduled to be put on the beam within a few days, as it has been finished at 3,595 feet and is now being tubed. The company started two new holes during the week, Nos. 6 and 7, each of which should be good for small production upon completion. The General Petroleum has cemented No. 11 Carson, a new well at 2,860 feet, and is rigging up No. 12.

Long Beach

The Weaver Syndicate at Long Beach is credited with a 476-bbl. well producing unusually clean 22.8 gravity oil. The hole, which is west of American Avenue, was quite surprising as the immediate territory has heretofore been considered quite doubtful because of the danger of water trouble, as it is pretty close to the edge of the structure at this point. The completion depth was 4,455 feet, a 6¼-inch oil string being used to finish the hole. Maier & Cook finished No. 1 Boles at 4,600 feet and brought in a 540-bbls. flowing well. The oil, which is flowing through a three-quarter-inch bean under a pressure of 300 pounds, tests 21.8 degrees and shows a cut of 5 per cent. No. 2 Boles, which is now going ahead at 4,200 feet, shoud be tanking oil within a few weeks.

Huntington Beach

The Standard has not started any work on its recently acquired Newland lease in the southwestern part of Huntington Beach, lately quit claimed by the Union. The latter company drilled three holes on the property and gave up the lease because of the failure to secure commercial production. The Union did develop a small output but apparently figured the wells would never pay out, much less pay for the cost of producing. The Standard is hot after cold test oil and will apparently drill its first hole in the northern part of the lease where this type of oil may be found. The Newland property adjoins the Standard's Surf lease out on the flat lands, where small but satisfactory production has been developed.

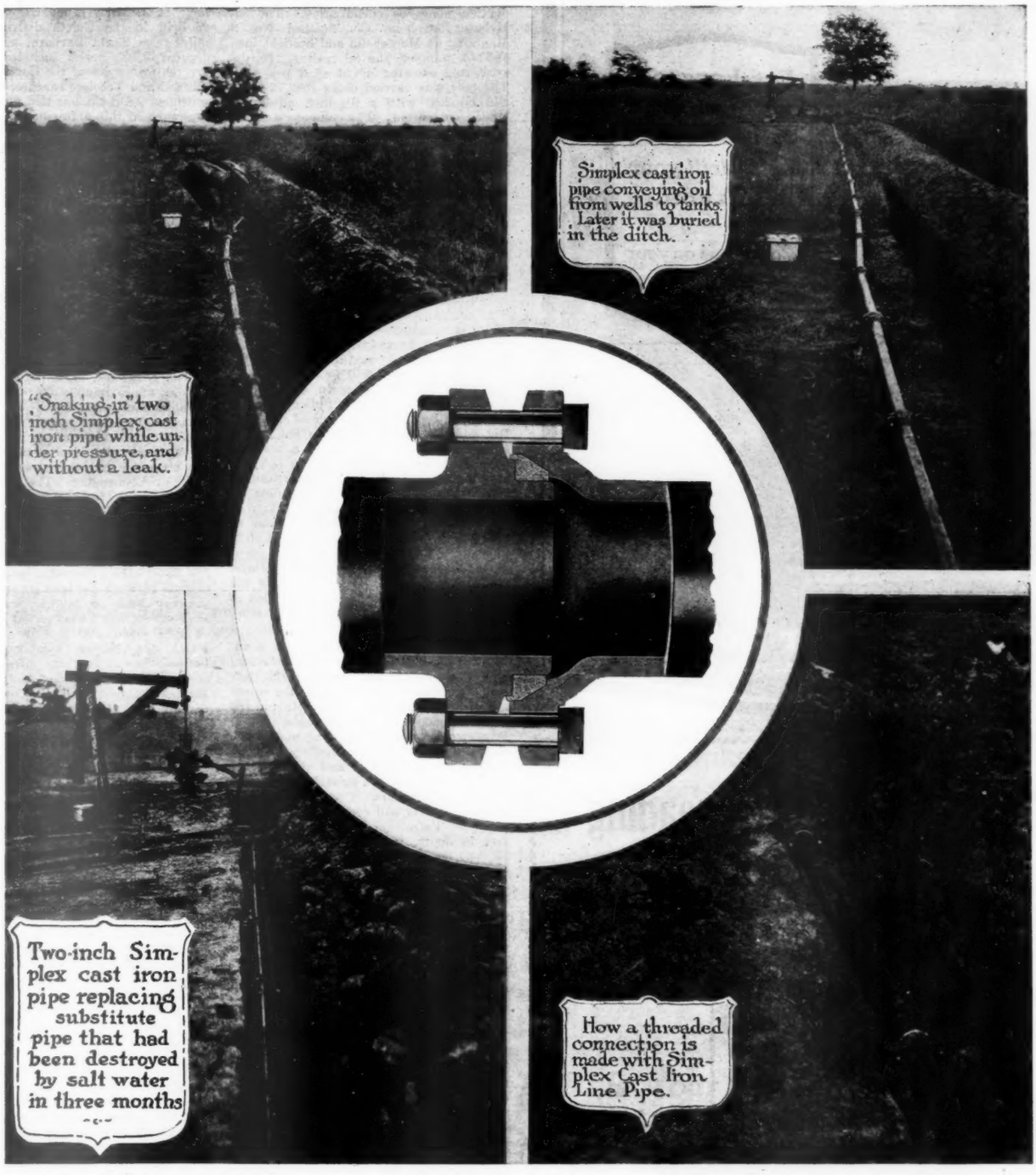
The Standard made a pumping test of No. 33 on Lease B, which has been carried down to the 5,000-foot level, but the outcome was somewhat disappointing as it is pumping 100 bbls. of oil and a similar amount of water. No. 5 Thompson was also put on the beam and pumped 150 bbls. of 21.8 gravity oil from 3,389 feet. The cut in this case was approximately 20 per cent. No. 6 Thompson, finished at 3,650 feet, pumps 15 bbls. of oil and 10 bbls. of water.

Santa Fe Springs

With no further development work possible at Santa Fe Springs, operators in this area are devoting attention to securing maximum production. Geologists engineers and production experts have been studying the situation in this field for several months and their reports recommending the installation of long-stroke pumps, air lifts and other mechanical devices to stimulate production, are meeting with universal approval. The installations made, together with the remedying of mechanical trouble and the plugging back in many instances from the Meyer to the Bell zone, has had a tendency to stabilize production in this area. As a matter of fact, the field output has shown a slight increase during the past few months and since there is room for further work along this line, continued improvement can be anticipated.

Rideout Heights

The California Petroleum Co. is plugging back No. 1 Witte, in the Rideout Heights section of the old Whittier Field, which did not secure commercial production in the deep zone at 4,686 feet, and will attempt to secure surface production around 850 feet. No. 2 Hamburg, a recent spud, will also be a shallow zone producer and since it is now at 600 feet, it has but a short distance to go. The Walter P. Temple Oil Co. is still drilling ahead in the Ocean View's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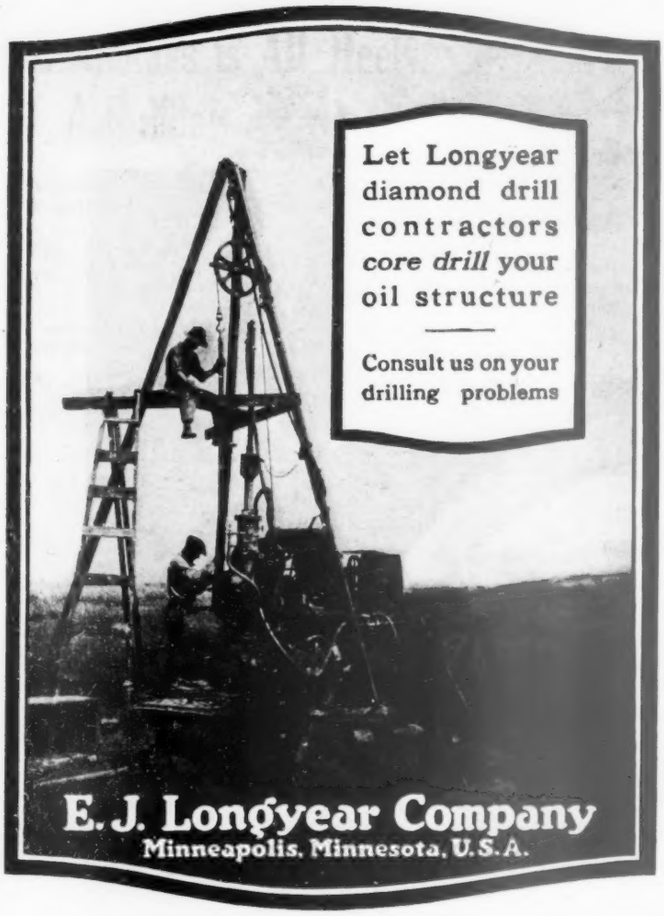
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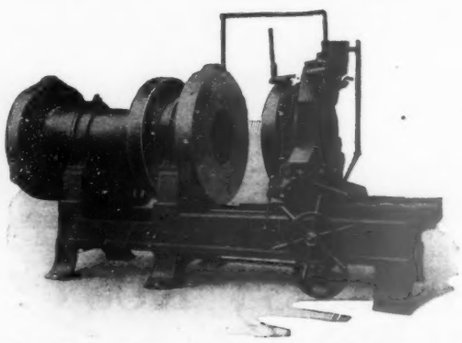

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well No. 2 at Whittier in the hope of picking up a deep sand. The formation at the present depth, 4,734 feet, is a hard sand with the prospects for production none too encouraging. The St. Helens Petroleum Co. finished No. 9 Monterey at Montebello and brought in a 185-bbl. pumper, the oil testing 21.8 degrees and showing a cut of 2 per cent. The hole was carried down to 3,722 feet and finished with a 6¼-inch oil string landed on bottom. The company's No. 2 Mulholland is still going ahead and at 4,130 feet shows a hard sandy shale. The McGinley Oil Co.'s drilling report shows pipe trouble in No. 17 and No. 19 standing recemented. No. 21 is drilling ahead at 3,100 feet, while No. 23 is making hole at 998 feet.

Water trouble prevented the Brea Canyon Oil Co. from listing No. 37 at Fullerton as a successful completion, although it flowed for a few days at the rate of 1,500 bbls. before the water broke in. The company is of the opinion bottom water is responsible and the hole will be plugged back from 4,682 to around 4,525 feet. The company was all ready to spud in No. 38 but work will probably be held up until No. 37 is again on production. The Union's two Fullerton wildcats, No. 1 Olinda going ahead at 2,853 feet and No. 2 held up with a fishing job at 2,741 feet are not yet in a position to be of interest. The Chiksan is experiencing difficulty in fishing Nos. 3 and 4 on the Bradford property at Richfield, as both are held up with mechanical trouble. No. 3 drilled into bottom water at 5,076 feet, while several stands of drill pipe were lost in No. 4 at 4,825 feet. No additional footage was made in well No. 20 on Kraemer Lease No. 2 of the Standard, as the hole is being redrilled at 893 feet preparatory to landing a string of stovepipe.

The A. T. Jergins Syndicate is abandoning No. 1 Mesa at Newport as a dry hole. It was carried down to 1,004 feet and a production test made in the upper zone before pulling out. The Marine Oil Corp. spudded in its new hole, No. 1 Waterman, and is just getting under way at 265 feet. Very litte drilling is being undertaken in this area and although the Interstate Oil Co. has material on ground for No. 2 Heights, it is problematical whether the rig will even be erected. The Newport Petroleum Co.'s oil mine, 505 feet in depth, is producing some heavy oil, but it is exceedingly doubtful whether the undertaking will prove economical. The Sunland Oil Assn. is working spasmodically on No. 1 Mesa, which is now down 300 feet, with a possible completion depth around 700 feet. No. 101 Fox of the Associated in the Beverly Hills Section of the Salt Lake Field, is reported at 5,050 feet, the formation at this depth being a hard shale streaked with sand.

Maricopa Flats

The Obispo Oil Co. has succeeded in landing 2,600 feet of 6¼-inch casing in its well No. 6 in the Maricopa Fats and may perhaps succeed in returning this deep zone well to production within three weeks. The company has, quite a problem with a heaving sand, due, undoubtedly, to a loose formation and a heavy gas pressure. Other operators in the meantime are losing very little time in getting down to this deep zone The General Petroleum is already down 680 feet in its No. 10 Annex and is just about ready to spud in No. 14-B Essex. The Eldora Oil Co. is also just about ready to spud in and carry its well No. 8 on Section 32-12-23 down for a deep test. The Trojan Oil Co., which should be the next concern to reach the Obispo zone, is going ahead at 3,850 feet, at which depth several other good showings were noted.

The Golden West Petroleum Co. has just leased 1,500 acres in the Santa Maria quadrangle and drilling is expected to get under way within 60 to 90 days. The property secured by the Golden West lies approximately 4 miles southeast of Santa Maria and was leased from the Bradly Land Co. and the Maynard estate. These holdings were formerly under lease to the General Petroleum but this concern abandoned its attempt to develop production because of unfavorable conditions and moved its equipment to Guadalupe on the western edge of the Santa Maria Valley. E. J. Miley is making preparations to drill in the Goleta district about 7 miles from Santa Barbara, where he has secured 3,000 acres, included in which are the properties of the Corona del Mar, Elwood and Tecolete ranches. The Transcontinental Oil Co. has tied up the Hollister ranch in this area consisting of about 1,000 acres and it is quite possible Miley and this concern will join forces in financing the first well in this section. The Chanslor-Canfield Midway Oil Co. failed to secure an effective water shut off in its Delano wildcat, drilled to 3,760 feet and the company has resumed drilling. The action of the company in resuming work somewhat discredits the report that the formation at the bottom of the hole was granite.

Southern California Wildcats

No. 1 Hellman, of the Associated, at Seal Beach, has just passed the 5,389-foot level in its search for the sand developed several months ago by the Shell in No. 1 Bryant, an apparent edge well, making approximately 50 bbls. of oil and 1,500 bbls. of water from 4,620 feet. The Associated still, of course, has a chance of picking up this sand as the well might be on a steeply dipping north flank of the structure but the prospects are not any too encouraging. The Shell has not met with any further success either, as evidenced by the depth of No. 2 Bryant at 5,620 feet and No. 3 at 6,680 feet. The Shell had started preliminary work for a new hole to be located southeast of the Associated's property, but a boundary dispute between the land owners has temporarily held up further work until a final survey has been completed. A strip of land about 200 feet in width, upon which the Shell's location has been flagged, has caused the present controversy. The property lies just east of the Hellman Ranch and the ownership is disputed by the Hellman interests and the Alamitos Land Co.

The Marland is still marking time with its Bixby lease northwest of the Associated's No. 1 Hellman and, although work was scheduled to have been started a week or so ago, the company is still waiting developments. In the Bandini area the Oakridge Oil Co. is drilling ahead in No. 1 Couts at 3,700 feet, the prevailing formation being a sandy brown shale. No. 4 DeBaker, of the Bandini Petroleum Co., is in a sticky shale at 2,250 feet, while No. 1 Vail, of the Superior, is being pushed ahead at 3,500 feet. The latter company is hauling in rig timbers for its new wildcat, No. 1 Anderson, in the Belvedere Gardens section, which will be located in Section 6-2-12. The Superior has spent the greater part of the past six months lining up this huge community lease and now that all preliminary work has been completed, drilling will be started immediately.

The Elbe Oil Co.'s test, west of Inglewood and between this field and the ocean front, is drilling ahead in a brown shale at 2,802 feet and, while one or two favorable showings have been noted, geologists do not look upon the location with favor. The Calny Oil Co. is rigging up cable tools in its Irvine wildcat, which has been carried down to 4,247 feet. The Shell chalked up another duster against the LaMirada wildcat area, which has been the scene of numerous attempts of late to develop an extension of the Santa Fe Springs structure. The company has decided that No. 1 Stubbs, carried down to 5,937 feet, is of sufficient depth to thoroughly test out this territory and abandonment work is already under way. The Union has temporarily suspended drilling on its Newhall-Saugus test at 2,970 feet and will substitute a rotary for the cable tools used heretofore. W. W. Stabler spudded in No. 1 Jenkins several days ago and is going ahead in a brown shale at 410 feet.

The Petroleum Securities drilled No. 1 Narbonne, at Palos Verdes, to 1,045 feet and landed a string of 12½-inch casing at 630 feet. Drilling will probably be resumed within a few days. The A. T.

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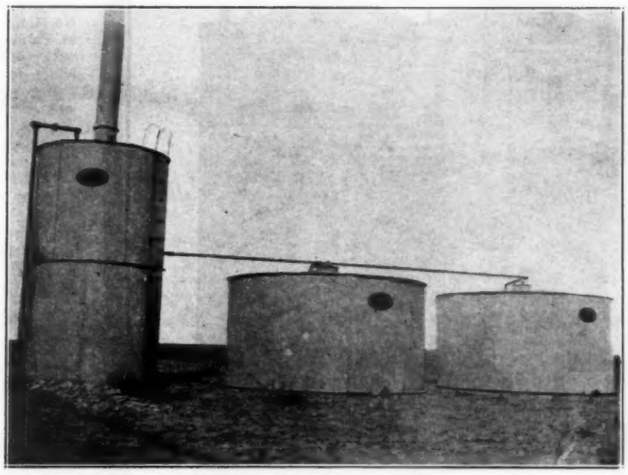

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Jergins Syndicate is rigging up to drill a test about a mile north of the Petroleum Securities. The Jergins holdings consist of about 400 acres and actual spud will be made as soon as machinery and drilling equipment has been installed. No. 1 Crest, of the Petroleum Securities, at Palms, has just been cleaned out, and with the successful recovery of the fish, which has been holding up work for the past several weeks, drilling will be resumed. The Milham Exploration Co. is getting quite deep at Playa Del Rey and the present outlook in this 5,167-foot hole looks rather discouraging. No. 1 Von Schriltz, of the Standard, at Santa Ana, is going ahead in a hard sand at 4,200 feet.

MEXICAN FIELDS

(Continued from Page 33)

5 Maza. Mexican Gulf Oil Co.'s No. 8 Zuniga, is testing for possible production in grey lime at 2,015 feet; its No. 3 Esterillos, is in white lime at 2,324 feet. New England Fuel Oil Co.'s No. 17 Piazzi, cemented 8-inch in grey lime at around 1,300 feet. National Oil Co.'s No. 13 Chijoles, is drilling in grey lime at 2,335 feet; and its No. 40, cemented 8-inch at 1,620 feet in the same formation. Palmer & Payne's No. 1, Lot 3 Tamismolon, is in grey shale at 1,620 feet. Tampascos Oil Co.'s No. 11 Robles, is ready to spud. The Texas Co.'s No. 9, Lot 22 Isleta, is in grey shale and gumbo at 680 feet. Transcontinental Petroleum Co.'s No. 23 Barbarena cemented 10-inch in grey lime at 1,200 feet. Thomas et al No. 24, Lot 12 W. Maguabes, is in grey shale at 785 feet, and his No. 32, same lot, is ready to spud.

Cacalilao

In the Cacalilao sector of the northern fields, International Petroleum Co.'s operations in Lot 5 follow: No. 144 cemented 6-inch in the San Felipe at 1,202 feet; No. 213 is in grey lime at 2,000 feet; No. 214 is in white lime at 2,259 feet; No. 215 is in gray lime at 1,640 feet; No. 217 is in the same formation at 1,483 feet; No. 220 is in white lime at 2,291 feet; No. 223 is fishing in grey lime at 1,790 feet; No. 224 cemented 6-inch in San Felipe at 1,205 feet; No. 228 is in blue shale at 590 feet; No. 229 is ready to spud and No. 231 is in blue shale at 650 feet. Mexican Sinclair Petroleum Corp.'s No. 31-B, Lot 3, is in blue shale at 770 feet; No. 57-A, same lot, is in grey shale at 275 feet. Mexican Gulf Oil Co.'s No. 73, Lot 1, is in the San Felipe at 1,330 feet. New England Fuel Oil Co.'s No. 2-A, Lot 3 Cacalilao, is in shells at 1,060 feet. Transcontinental Petroleum Co.'s operations in Lot 4: Nos. 204 and 205 are in lime at 2,010 and 1,950 feet, respectively; No. 209 is in the San Felipe at 1,490 feet; No. 210 is running 8-inch in grey shale at 800 feet; No. 212 is fishing in grey lime at 800 feet, and in in the Paciencia, just north of Cacalilao, its No. 18 is running 12½-inch at 600 feet; No. 22 is in grey shale at 750 feet, and No. 33 is in the San Felipe with an oil show at 1,250 feet.

South Fields

In the south fields, Huasteca Petroleum Co.'s No. 60 Cerro Azul, is in brown shale at 1,775 feet; No. 67-A is in basalt at 1,340 feet; No. 69 is in grey shale at 85 feet. Down in Tierra Blanca its No. 56 is in grey shale 230 feet. Mexican Eagle Oil Co.'s No. 46, Lot 138 Amatlan, is in blue shale at 1,850 feet; its No. 26 Alazan, is in soft grey shale at 510 feet; its No. 21 Cerro Veijo, is in grey shale at 1,888 feet; its No. 24 there is in the same formation at 1,800 feet, and down in Furbero, its No. 35 is in shale at 1,853-feet. Agwi Co.'s No. 40 Laguna de Tamiahua, which was drilled to 1,490 feet, is filling up to 500 feet to straighten crooked hole.

Northern Miscellany

At Ebano in the northern fields, Mexican Petroleum Co.'s operations in its Chapacao sector follow: No. 7 is in the Tamasopa at 2,140 feet; No. 39 is in grey lime at 1,535 feet; No. 41 is in grey shale at 955 feet and is bailing oil; No. 42 is in the same formation at 1,115 feet. In its Chijol No. 31 is in blue lime at 1,435 feet; No. 34 has been shut down for the time being in the Tamasopa at 2,535 feet; No. 35 cemented 10-inch in blue lime at 1,060 feet; No. 36 cemented 8-inch in white lime at 1,200 feet. In La Dicha, its No. 39-A is in blue lime at 1,864 feet; No. 63 cemented 8-inch in grey lime at 1,220 feet. In the La Pez, No. 9-A, originally called a completion, is being deepened, the drill being in white and brown lime now at 2,712 feet, and No. 10, same, cemented 8-inch in white lime at 1,435 feet.

In the Corcovado sector, La Corona Petroleum Co.'s No. 14, Lot 6, is spudding. Mexican Gulf Oil Co.'s No. 13 Chapacao, is in grey and brown lime at 1,852 feet, and its No. 19 is in shells and shale at 1,130 feet. Transcontinental Petroleum Co.'s No. 18, Lot 6 Corcovado, cemented 10-inch in shells at 1,285 feet; its No. 20 is in grey lime at 1,920 feet, and No. 22 is in grey shale at 1,210 feet.

At Los Esteros, American International Fuel Co.'s No. 18 is in white lime at 2,026 feet.

In the Marland Field, Cia Petroleum Franco Espanola No. 32 Limon, is in lime at 1,785 feet; No. 34 is in grey lime at 1,700 feet; No. 35 is in soapstone, shale and lime at 1,870 feet.

In the Topila district, Ita Mex Oil Co.'s No. 15 La Mula, is in the Tamasopa at 2,425 feet. Mexican Oil Co.'s No. 6, Lot 19 Tamboyoche, is in brown lime at 2,160 feet. The Texas Co.'s No. 2, Lot 22 Pac. de Aguacate, is in shale and shells at 1,455 feet.

At Tanceme, well south of Topila, International Petroleum Co.'s wildcat there, No. 1, is in the Papagallos at 4,200 feet.

On its right-of-way through the Chapacao of the Ebano district, National Lines' is in grey lime with the hole full of oil at 1,597 feet; No. 19 cemented 8-inch in grey lime at 1,240 feet, and over in the Federal zone of the Tanchicuin district (Panuco), its No. 25 is in grey shale around 1,375 feet.

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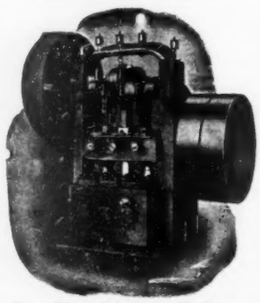

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Tampico. Mordelo Vincent's No. 1 Casa Piedra, is in grey shale at 2,200 feet.

Mexican Notes

Cortez Oil Corp.'s No. 11 Aguada, South Fields, finished last July at 5,250 feet, white lime, where it makes considerable gas, was shot last week with 500 quarts of nitroglycerin but no favorable results were obtained. There have been a number of wells shot in Mexican pools in the past several years but the results have always been negligible.

W. L. Steed, general superintendent of the Mexican Petroleum Co., at Ebano, and Lee Stoner, assistant manager and chief engineer of the East Coast Oil Co., Tampico, have both returned from vacation visits spent at home. Mr. Steed hails from Virginia; Mr. Stoner from Kentucky.

SOUTHWEST TEXAS

(Continued from Page 46)

for that purpose. The flow of water has nearly ceased.

Analysis of the water in the Minna Coreth indicates it is the same as found in the No. 1 Cassin, 6 miles to the southwest, and an analysis of the oil showing had in No. 2 Minna Coreth leads to the belief it was from the Austin chalk above and not from the Edwards, as at first supposed and reported.

Marland Oil Co. in eastern Bexar, the St. Hedwig-Adkins district, has completed above eight holes with diamond core, and will make more than as many again before making the location for a deep test.

Caldwell County

Witherspoon Oil Co. has completed putting on the pump Nos. 13 and 14 on the A. H. Cardwell 52½-acre tract in the Lockhart Field, which completes all the outside locations on the lease, and all are on production. No. 10 on the Brewer 36-acre tract, purchased from Mills Bennett, is drilling at 1,316 feet, but there is room for one more well on that lease. Gulf Co. is completing some additional wells on its leases but all are inside drilling.

Around the edge of the Lockhart Field J. E. Walsh is down several hundred feet on No. 2 Eppright, which is 600 feet southeast of No. 1 on the same lease. At 700 feet No. 2 had a showing of oil not detected in No. 1. No 2 will go to the Edwards lime unless it gets production in the Serpentine at shallower depth. Due to the spotted nature of the field, the operator is looking for a well, and an extension of the field. The most important development in the wildcats about the Lockhart Field is a slight showing of oil in the Serpentine at about the proper depth in Bailey & Blum's No. 1 Robert Gwinn, more than a mile south of the Gulf Production Co.'s No. 2 Riddle that recently extended the field, though the well was but 150 bbls. E. L. Smith Oil Co.'s No. 1 Lackey, near Dale and southeast of the field, which topped the chalk at 2,077 feet, was still in the chalk at 2,500 feet.

Payne & Bond, west of Lockhart town and just north of the town of Maxwell, in No. 1 Schawe, are fishing. This well was reported to have had sulphur water in the Edwards at 1,133 feet. This was incorrect. The well got no water of any kind and is now at 1,577 feet. Absence of water seems to be in its favor and is taken as indicating being on a structure. It is understood plans are underway to drill another test 600 feet southeast. No. 1 has had considerable gas.

C. D. Wilford's No. 1 Schroeder has resumed drilling after a shut down on account of water and is at 1,600 feet and in the Austin chalk. Sun Oil Co. is continuing to dig shallow shafts in western Guadalupe on its block of leases, preliminary to further deep test drilling. Pat Armstrong and others' No. 1 Thomas midway between the town of Lockhart and the Lockhart Field, at about 1,536 feet was reported to have the Serpentine with a showing of oil. Two 1,000-bbl. steel tanks were erected and the well bailed. It failed to respond.

In the Luling Field, United North & South Co.'s No. 2 Tiller (one of the deep tests) is drilling at 5,200 feet. This well was reported last as No. 1 Tiller, a mistake. No. 1 Kelley, the deepest test in the field, is still fishing, depth about 5,700 feet. No. 3 Tiller, a test to the Edwards lime, at 2,150 feet, is making 300 bbls.

DeWitt County

Yoro Development Co.'s No. 1 Tom Burns, at Edgar in the I. G. Belcher 1-3 League, is drilling below 720 feet. Cuero Oil & Gas Co.'s No. 1 William Holzappel is drilling at 1,750 feet in shale, after a shut down and reorganization.

Duval County

Graham & Davenport are arranging to drill in the northeast corner of Duval County on the Beall tract and on Chiltpin Creek. Definite location has not been made. The test will be started by October 1. It is in a part of the country where there is but little activity, but previous wildcat drilling has resulted in more or less important showings of gas and oil, and the Humble has a test now on the Ridder to the northwest a few miles. United States Gas & Oil Co. is moving in on No. 1 Arispe Grant test in western Duval, north of the Cole gas field, and also moving in on No. 1 Peters on Survey 37 in the same general area. Associated Oil Co.'s No. 1 Sutherland, in western Duval County, is testing a showing at 1,780 feet. Co-operative Drilling Co.'s No. 2 Dinn, in western Duval is drilling below 1,600 feet. O. W. Killiam's No. 3 Benavides, in the Cole gas field, is in lime at around 2,800 feet.

Gonzales County

R. M. Bleakie's No. 1 J. S. Moore, 6 miles north of Nixon, is shut down temporarily at 960 feet.

Refugio County Gas

For the second time the officials of the Texas Railroad Commission, acting as the oil and gas division, visited the Refugio County gas field to ascertain if the latest gas blowouts had been due to any neglect in following the instructions of the department. Steve W. Blount, Jr., supervisor of District No. 2 in which Refugio County is located, recently capped George E. Smith's No. 1 Wilson Heard, which after running wild for one month registered a volume of 72,000,000 feet per day of dry gas. This well is in good shape and the Rook well of the Houston Oil Co. is in good shape, and both are ready to turn into the pipe line.

The Refugio Oil & Gas Co.'s No. 1 Tom Heard recently broke loose while being drilled at 1,168 feet and made a large volume of gas and water, and it was feared for a time that this gas was coming from No. 1 Lambert, which was lost at 1,900 feet. It is now believed the gas and water in No. 1 Tom Heard came from the stray sand at 1,168 feet and that the rest of the field and deeper sands are not affected. No. 2 Lambert, drilling 300 feet away from No. 1, is now running wild from around 500-foot depth but this is not considered serious.

The valuable sand of the field is at 2,400 feet and none of the wells that reach that depth is running wild, and the pressure on all of these wells has remained unchanged. R. E. Breeding is erecting steel derricks preparatory to drilling on the Wilson Heard 200-acre tract and the J. F. B. Heard 300-acre tract, all in the same Refugio gas field.

Guadalupe County

Scrivner and others' No. 1 Vetter, west of Kingsbury, which has been fishing at 2,200 feet, has secured additional fishing tools and hopes to clean out the hole. Southwestern Extension Syndicate (Howell Brothers) has been delayed getting casing set in No. 1 Willman, but casing is now being set at 1,560 feet. Humble Oil & Refining Co.'s No. 1 Lowman, in the northern part of Guadalupe County, which spudded in September 5, is drilling and has made several hundred feet, using three tours.

San Patricio County

John Sigmund's No. 6 well at Aransas Pass, in San Patricio County, has reached a depth of 2,210 feet. Casing was set at 2,172 feet and the crew has been coring every 2 feet since, looking for a rock proven in No. 5 to be 30 feet thick and carrying some oil. The two wells are 115 feet apart and the dip about 35 feet between them. It is in this rock that production is expected.

CANADIAN FIELDS

(Continued from Page 38)

In the northern foothills, west of Edmondton, Imperial Oil, Ltd.'s No. 2 Coalspur has reached a depth of 3,660 feet with 8¼-inch casing within 200 feet of the bottom of the hole. Some delay is being caused by caving formations, but the work is going steadily ahead.

In the Willow Creek district, west of Nanton, the Rice Creek test, after an aggravated fishing job, has recovered the major portion of the tools and the balance will be drilled out. This well is now down 2,026 feet and carrying down 10-inch casing.

In the Turner Valley Field, southwest of Calgary, Royalite Oil Co.'s No. 5, about 200 yards north of Royalite No. 4 naphtha well, is reported drilling at 1,742 feet. No. 6 is fishing for a lost bit at 1,210 feet. Construction work on the scrubbing plant for the treatment of the Turner Valley sulphur gas is going steadily ahead, and the plant is expected to be in operation very soon. Some delay is being experienced in the laying of the new gas lines, owing to the inability of the gas company, the city of Calgary and the Alberta Government to reach an agreement.

Shell Co. of Canada

A new development in the Canadian fields is the incorporation under Dominion charter of "The Shell Co. of Canada, Ltd.", with a capitalization of $1,000,000 and head office at Montreal, Quebec, which is believed to foreshadow the active participation of the Shell interests in oil development in the Canadian West. For the past two months Prof. John Irving Moore, who is understood to represent the Shell interests, has been investigating the various potential fields and the development. work already done in Alberta, and these investigations are still in progress. The charter of the new company confers wide powers, including drilling for, production, refining and marketing of petroleum. Among the fields examined by Dr. Moore are the producing field at Turner Valley, the Irma-Wainwright area with three potential producing wells, the Foremost gas field and the Rogers-Imperial area east of Coutts. Dr. Moore's activities have been confined to geological work, and no steps have yet been reported in the direction of securing territory for development.

In the Quarantine Reserve area near Coutts, Urban Oils, Ltd.'s No. 1 Moodie is reported underreaming at 1,950 feet, due to 150 feet of caving. They expected to find water at 1,800 feet, but instead went through a 50-foot dry sand. The log does not correspond to the McLean Mitchell well previously drilled in the same area. Oil colors were met at 1,900 feet, and the Sunburst sand should be picked up at 2,275 feet.

In the Bad Lands of the Manyberries district, southeast of Lethbridge, oil indications are reported to have been encountered in artesian wells. The showings have been examined by Dr. M. Y. Williams of the Geological Survey of Canada, and Dr. Moore of the Royal Dutch Shell geological staff.

Ontario Fields

In the Ontario Fields, the Medina Natural Gas Co., drilling in Middleton Township, Norfolk County, has brought in a gasser good for 248,000 feet a day. The test got the gas sand at 1,247 feet and finished at 1,322 feet. This promises a considerable extension of the new Courtland Field, in which the Dominion Natural Gas Co. has already finished five producers. No. 6 Dominion is shut down owing to a broken stem, and No. 7 is drilling around 1,000 feet. The wells are at present shut in, but a 4-inch line is being laid to Simcoe.

In the Petrolia-Enniskillen shallow field, Lambton County, the Canadian Oil Companies, Ltd., of Petrolia, have purchased from the Canadian Oil Producing & Refining Co. approximately 60 acres of Blind Line property, including ex-

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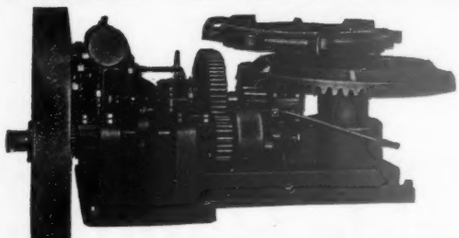

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tensive underground tankage and oil wells. The purchase price is approximately $37,000, possession having been given on September 1. The Canadian Oil Producing & Refining Co. was promoted by the late John McDonald, a pioneer refiner and oil producer of Petrolia, the company being financed chiefly by English stockholders.

It is reported that as a result of the recent declines in crude oil prices together with the discontinuance of the Government bounty, a number of the smaller pumping wells in the Petrolia and Oil Springs Field have been abandoned and the casing pulled.

N. LOUISIANA-ARKANSAS

(Continued from Page 34)

Section 8-15-5, 6 miles southeast of Bienville.

Bossier Parish

Corbet and others are rigging up to drill No. 1 Murff, Section 18-17-11, 6 miles northeast of Curtis.

Square Deal Oil Co. moved rig back and drilled from 1,125 to 1,145 feet and shut down repairing rig in No. 1 Hobbs, Section 18-18-11, 2 miles west and a little north of Haughton, formerly called Standard Drilling Syndicate's No. 1 Johnson.

Bellevue Field

G. W. Wetherbee is drilling at 50 feet in fee F-12, Section 23-19-11.

Caddo Parish

In the Pine Island district, Dixie Oil Co. is rigging up to drill No. 69 Robertshaw, Section 14-21-15. Fortuna Oil Co. set 10-inch at 140 feet in No. 1 Spell, Section 29-21-15; Lewis Oil Corp. is rigging up to drill No. 12 Raimes, Section 22-21-15; Ohio Oil Co. tested 50,000,000 feet of gas and is arranging to kill and set casing at 3,696 feet in No. 17 E. K. Smith, Section 12-21-15.

In the Houston district, Dixie Oil Co. is drilling at 3,455 feet in No. 1 Jolly, Section 27-22-15; Austin Oil Co. set 6-inch at 1,020 feet in No. 24 Hoss, Section 24-22-15; Dixie Oil Co. set 10-inch at 1,045 feet and is waiting on standard rig at 1,055 feet in No. 2 Hoss, Section 24-22-15.

Flournoy Trustee is fishing for drill stem at 2,755 feet in No. 1 Simpson, Section 8-16-15, about half way between Reisor and Bethany.

In the Oil City district, Fortuna Oil Co. is drilling in lime at 3,425 feet in No. 2 Levee Board, Section 8-20-15, and drilling in lime at 3,870 feet in No. 1 Mitchell, Section 17-17-16, 4 miles west of Cross Lake.

Haynes Brothers are down 3,560 feet in No. 1 Louisiana Live Stock & Plant Co., Section 8-19-16, 6 miles southwest of Mooringsport.

Louisiana Oil & Refining Co. is drilling in shale at 1,730 feet in No. 17 Green, Section 27-20-16, south end of the Caddo Pine Island Field.

In the Elm Grove district, Roy and others are rigging up to drill No. 2 Hutchinson, Section 4-15-12.

Standard Oil Co. set 6-inch at 2,305 feet in No. 173 Stiles, Section 27-21-16 in the old Caddo Field.

The Texas Co. is trying to pull liner at 2,605 feet feet in No. 5 Huron Land Co., section 17-15-12, 3 miles south of Gayle in the south end of the parish, and is drilling at 2,925 feet in No. 58 Levee Board, Section 27-21-16, in the Caddo-Pine Island Field.

Claiborne Parish

Ohio Oil Co. set 10-inch at 500 feet and is drilling in gummy shale at 1,458 feet in No. 1 Patton, Section 23-21-5, 12 miles east of Homer.

De Soto Parish

Dixie Oil Co. is drilling at 50 feet in No. 1 Jenkins, Section 9-21-11, 6 miles west of the Bull Bayou Field.

Fortuna Oil Co. is drilling in lime at 3,615 feet in No. 1 Alexandria, Section 32-12-15, 5 miles east of Logansport.

Gulf Refining Co. is drilling in sandy lime at 4,150 feet in Willis-Williams G-18, Section 31-13-11 in the old Naborton Field.

Las Salle Parish

Imperial Oil & Gas Co. is drilling at 2,245 feet in No. 1 Urania, Section 10-10-2e, 3 miles east of Urania.

Zeigen and others have a flow of 100

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bbls. through 2½-inch tubing, 60 per cent salt water in 4 feet of sand at 1,559 feet in No. 3 Urania, Section 19-10-2e, offsetting discovery well, and Urania Petroleum Co. is arranging to test in 1 foot of sand at 1,577 feet in No. 8 Urania, same section.

Morehouse Parish

R. C. Boisseau is drilling in gumbo at 1,245 feet in No. 1 Sullivan, Section 11-21-7e, 10 miles east and a little north of Bastrop.

Ouachita Parish

Consumers Natural Gas Co. set 6-inch at 2,145 feet in No. 1 Collins, Section 10-19-5e, in the north end of the Monroe gas field.

Southern Carbon Co. is drilling at 2,045 feet in No. 3 Kerr, Section 12-19-4e, 10 miles northeast of Monroe.

Ouachita Gas Co. is drilling at 1,920 feet in No. 2 Listen-Waddle, Section 32-20-4, 12 miles north of Monroe.

Union Gas & Power Co. is drilling at 1,920 feet in No. 1 Lewis, Section 15-10-5e, 9 miles northeast of Monroe.

Red River Parish

Fortuna Oil Co. set 6-inch at 2,695 feet in No. 34 Continental-Polly, Section 7-22-10, and Clark & Greer set 10-inch at 100 feet and are down 1,240 feet in No. 1 LaGrande, Section 2-14-12.

Sabine Parish

L. M. Emlet is drilling at 2,115 feet in No. 2 Bowman-Hicks Lumber Co., Section 8-7-12, 7 miles northwest of Many.

Toro Petroleum Co. is drilling in sticky shale at 2,234 feet in No. 1 Wyatt Lumber Co., Section 18-4-11, 17 miles south of Many.

Union Parish

R. U. Rhodes is drilling at 1,450 feet in No. 1 W. M. Jones, Section 6-23-2w, 20 miles northwest of Farmerville.

Winn Parish

Ohio Oil Co. is drilling in hard lime at 2,905 feet in No. 1 Rowland, Section 5-12-1w, about 12 miles northeast of Winnfield.

Cotton Valley District

Fortuna Oil Co. is trying to pull liner in No. 1 Bible, Section 8-20-10, at 2,946 feet; has derrick up for No. 2 J. Cox, Section 23-21-10; driling at 2,545 feet in No. 3 R. R. Cox, Section 15-21-10; down 1,800 feet in No. 4 R. R. Cox, same section.

J. F. Giles, trustee is drilling in lime at 2,015 feet in No. 1 Weghost, Section 20-23-11.

Humble Oil & Refining Co. is drilling in rock at 1,035 feet in No. C-2 Bodcau, Section 13-21-10 and set 10-inch casing at 450 feet and is drilling in gumbo at 1,545 feet in No. B-21 Bodcau, Section 15-21-10.

Louisiana Oil & Refining Co. has made location for No. 4 Bodcau, Section 13-21-10.

Ohio Oil Co. set 6-inch at 2,543 feet in No. 16 Gray, Section 26-21-10; rigging up to drill No. 17 Gray, same section; has made location for No. 19 Gray, same section; driling in lime at 1,800 feet in No. 1 Sandlin, Section 27-21-10.

Palmer Corp. is driling in lime at 4,070 feet in No. 1 Davis, Section 23-21-10.

Woodley Petroleum Co. is drilling in chalk rock at 2,050 feet in No. B-1 Gray, Section 27-21-10.

Arkansas Wildcats

Gulf Refining Co. is drilling in sandy shale at 1,645 feet in No. 1 Benson, Section 25-15-9, 16 miles south of Warren.

The Texas Co. is drilling at 3,200 feet in No. 1 Sabine Lumber Co., Section 11-16-10, 20 miles south of Warren and 4 miles south of the Benson well.

Clark County

Virgil Heath is waiting orders at 200 feet in No. 1 Arnold, Section 12-9-20, 4 miles northeast of Gurdon.

Dallas County

McNeil and others set 10-inch at 180 feet in No. 1 Owens, Section 29-10-16, 16 miles north and a little east of Camden.

Calhoun County

Genther and others are drilling at 2,695 feet in No. 1 Freeman Lumber Co., Section 24-15-15, 3 miles north of the Smackover Field.

Gulf Refining Co. is drilling at 550 feet in No. 1 Freeman Smith Lumber Co., Section 31-15-13, 13 miles northeast of El Dorado.

Jewett and others are drilling at 950 feet in No. 1 Freeman Smith Lumber Co., Section 35-15-13, 1 miles southeast of Hampton.

Murdock and others are drilling at 2,380 feet in No. 1 Eagle Lumber Co., Section 29-12-15, 12 miles south and a little east of Hampton.

Columbia County

Gulf Refining Co. is drilling at 3,450 feet in No. 1 J. D. Hines, Section 17-17-18, 15 miles east of Magnolia.

Magnolia Petroleum Co. set 6-inch at 2,118 feet in No. 3, L. Rhinehart, Section 26-15-20, 9 miles north of Magnolia.

Timberlake and others are drilling at 40 feet in No. 1 Williams, Section 22-16-19, 4 miles southeast of the Stephens Field.

Hempstead County

Tarver and others set 8-inch at 2,080 feet in No. 1 Swafford, Section 14-11-25, 8 miles northeast of Hope.

Jefferson County

Decou Oil Co. is drilling in gumbo at 1,415 feet in No. 1 Hinsley, Section 7-3-10.

LaFayette County

Arkansas Fuel Oil Co. is drilling in gumbo at 2,665 feet in No. 1 Allen, Section 18-19-24, 2 miles east of Bradley.

Humble Oil & Refining Co. is drilling in shale at 2,010 feet in No. 1 Reed-Bodcau, Section 16-15-22; has derrick up for No. 1 Massey, Section 24-16-24; hit Nacatoch sand at 1,240 feet and is drilling at 1,350 feet in No. 1 Bodcau-Waldorf, Section 15-15-22, 6 miles east of Lewisville, and has derrick up for No. 1 Morgan, Section 9-15-22, 12 miles west of the Stephens Field.

Kensaw Petroleum Co. has shut down at 2,820 feet in No. 2 Red River Land Co., Section 3-20-24, just across the Louisiana line and 4 miles northwest of the Springhill district.

Little River County

Grote and others set 6-inch at 2,028 feet and are drilling at 2,985 feet in No. 1 Allen, Section 2-13-31.

Miller County

Coplen and others have shut down for water at 2,260 feet in No. 1 Wiseman, Section 36-15-27, 10 miles east of Texarkana.

Davidson and others are down 2,180 feet in No. 1 Faulk, Section 20-17-27, 12 miles southeast of Texarkana.

Humble Oil & Refining Co. is waiting water at 1,378 feet in No. 2 Fouke, Section 2-16-27, 9 miles southeast of Texarkana, waiting water at 1,510 feet in No. 1 Dorsey, Section 2-17-26, 10 miles south of Lewisville.

Nevada County

Greason and others set 10-inch at 40 feet and are down 300 feet in No. 1 Waters, Section 2-14-21, 18 miles directly north of Magnolia.

Magnolia Petroleum Co. is drilling in shale and shells at 2,400 feet in No. 1 B. F. Johnson, Section 3-15-21, 20 miles south of Magnolia.

Ouachita Valley is driling in gummy shale at 2,605 feet in No. 1 Phillips, Section 30-14-20, 4 miles northwest of the Stephens Field.

GULF COAST

(Continued from Page 38)

Exploration Co.'s No. 5 Freeman, in the bay, is drilling around 2,655 feet. The Gulf Production Co.'s No. 32 Beaumont is drilling below 2,910 feet and No. 31 State Land is at 2,925 feet. The Gulf Coast-Crown Central joint No. 27 Galliard is around 3,315 feet. The Humble Oil & Refining Co.'s No. 4 Harrel, on the west side of the creek, is drilling below 4,715 feet and No. 64 Smith is at 4,200 feet drilling deeper. Allen and Marshall's No. 2 Gillette is working over at 2,010 feet. The Bruce Production Co.'s No. 3 Scorrgea is around 3,210 feet.

On the east side of the dome at Pierce Junction, the Gulf Production Co.'s No. 17 Taylor is drilling around 4,025 feet.

In the Batson Pool, The Texas Co.'s No. 1 LaJarza, on the east side, is drilling below 1,335 feet. The East Batson Oil Co.'s No. 10 Donohoe is deepening at 1,075 feet. The Paraffine Oil Co.'s No. 60 Paraffine is at 765 feet. The Sterling Oil Co.'s No. 1 Hook is drilling below 1,300 feet. The Krby Petroleum Co. has made a location for No. 3 Hodges in the deep sand section on the north side.

The Rio Bravo Oil Co. is drilling deeper No. 2 Fountain, on the north side of the Saratoga Pool, from 3,245 feet.

The ancient Spindletop Pool is just as active as any of the older districts, notwithstanding it was the first pool discovered in the Coastal Plaints Belt. The Lillian Oil Co.'s No. 1 Terrell is deepening below 1,000 feet. The Lotus Oil Co.'s No. 1 Gladys is around 10,000 feet. The Unity Oil Co.'s No. 86 McFaddin is drilling around 955 feet. The Sun Co. is deepening No. 49 Lone Star lease. The Yount-Lee Oil Co. is rigging No. 1 McFaddin.

Other Pools

At High Island, Galveston County, the Gulf Production Co.'s No. 3 Smith is below 3,100 feet and No. 4 Smith is around 2,640 feet. The Sun Oil Co.'s No. 8 Cade is drilling about 3,045 feet and No. 5 Broussard is around 450 feet. No. 1 B. & O. is deepening at 2,240 feet. The Island Oil Co.'s No. 1 McCarthy is drilling at 2,310 feet.

In the Markham Pool, the Rycade Petroleum Co.'s No. 3 Gray is drilling deeper at 4,176 feet. The Houston-Gulf Gas Co. has a derrick up for No. 2 Myers. The Ryberg Oil Co., of Bay City, is starting No. 1-A Smith.

In the Blue Ridge Pool, The Texas Co.'s No. 13 Robinson, on the west side, is drilling around 4,030 feet and the Gulf Production Co.'s No. 12-C Blakely, on the east side, is below 3,910 feet.

In the West Columbia Pool, the Humble Oil & Refining Co.'s No. 1 M. & W., on the northwest, is drilling around 3,900 feet, and No. 1-B Wilson is about 765 feet. The Hyde Production Co.'s No. 8 McGregor is below 1,235 feet.

Hamm & Co. is starting No. 3 Bryan on the southwest side of the Damon Mound Dome.

The Gulf Production Co.'s No. 24 Davs, at Big Creek, is drilling around 2,810 feet.

South Louisiana Pools

In the Edgerly Pool, the Lake Charles Petroleum Co.'s No. 2 Fairchilds is drilling below 2,816 feet.

In the Lockport Pool, the Vacuum-Gulf's joint No. 4 Miller is bailing at 5,575 feet, the deepest test in South Louisiana. No. 3 Lock-Moore is drilling at 3,020 feet and No. 2 Farquhar at 4,490 feet. The Marland Oil Co.'s No. 1 Phoenix, south of production, is below 3,910 feet. The Vacuum-Gulf No. 1 Prien Lake is rigged and a water well drilled.

The Union Sulphur Co. is drilling Nos. 1 Lein, 1 Land, 1 Vincent and 1 E. A. Vincent in Cacasieu Parish.

The Etropal Oil Co. is drilling No. 1 Regan in Acadia Parish.

In Iberia Parish at Jefferson Island, the United Oil & Gas Co.'s No. 1 Bayless & Jones is drilling below 4,250 feet and No. 1 Fannie Loughridge is around 3,000 feet. Following daily showers for the past few weeks, the mosquitos are making life miserable for crews on drilling wells in the marshes of South Louisiana.

The Rycade Petroleum Co.'s No. 1 Hooks, Lake Arthur, is drilling around 2,100 feet.

In Sabine Parish, the Toro Petroleum Co. set 8-inch casing in No. 1 Wyatt at 1,500 feet .

Texas Coastal Wildcats

In Brazoria County, Hamm & Co. is rigging up No. 2 Chester at Bryan Heights. The Stratton Ridge Oil Co. is rigging No. 18 on the north side of Stratton Ridge Dome.

In Fort Bend County, the Rycade Petroleum Co.'s No. 2 Wisdom, off the Wisdom-Nash Dome, 7 miles southeast of Damon Mound, is drilling around 2,910 feet. No. 3 Wisdom is about 765 feet. No. 4 Nash is drilling below 1,235 feet. Southwest of Needville, The Texas Co.'s No. 1 Armstrong is around 4,113 feet. Off the Orchard Dome, northwest of Rosenburg, the Gulf Production Co.'s No. 5 Moore is drilling at 1,507 feet. At Long Point, between Big Creek and Damon Mound, the Gulf Production Co. has a derrick standing for No. 5 Davis. The Wisdom-Nash, Orchard and Long Point salt masses were located by means of the seismograph or torsional balance methods of making geological explorations, but no production has been developed around any of them yet.

Other saline domes located by means of these geophysical explorations include one at Hawkinsville, Matagorda County, where the Gulf Production Co. is now drilling No. 2 Craig, and the Shepherd Oil Co., No. 2 K. Hawkins. At Fannette, southwest of Spindletop, Jefferson County where the Gulf Co. is drilling its fourth formation test on the Thomas acreage at 455 feet. The three previous tests went into gyp around 1,000-1,100 feet. Other domes have been located east of Green Bayou in Harris County, north of Anahuac in Chambers County, the northern part of Orange County, and spots in Brazoria County. East of Green Bayou, The Texas Co. drilled six formation tests to around 1,000 feet. The Rycade Petroleum Co. is now drilling No. 1 Norsworthy below 4,055 feet. The same company's No. 4 Warren, at Hockley Dome, is drilling around 3,200 feet, and No. 5 Warren is below 1,900 feet. Baldwin and others' No. 1 Haney, north of Goose Creek, is below 1,210 feet. The Retreive Oil Co. set casing and waiting for cement to set in No. 1 Westheimer, north of Houston. A sand at 2,620 feet will be bailed. The combination united in making this test is the cause of much jesting. The location was made by a negro with a working knowledge of geology. Negroes helped finance it. The crew is of Irish descent. Members of an organization said to be inimical to both races are said to be interested, and the land is owned by a Jew.

In Jefferson County, the Walton Oil Co.'s No. 1 French, northwest of Spindletop, is drilling around 1,200 feet. The Houston Oil Co. abandoned No. 3 Sun-Davis at Big Hill Dome at 1,900 feet, and is drilling No. 1 Fanny Crow there at 2,900 feet.

In Liberty County, the Old Colony Oil Co. is drilling No. 10 West Liberty lease in the old Dayton district, and the Liberty Production Co. is drilling No. 1 Seaberg, in the northern part of the county.

In Jackson County, Houston Oil Co.'s No. 1 Rodgers is drilling at 2,455 feet, 7 miles west of Edna. The Vanderbilt Petroleum Co.'s No. 1 Seliner, 4 miles north of Vanderbilt, is idle at 3,285 feet.

In Refugio County, the Houston Oil Co.'s No. 1 Heard is around 1,900 feet. No. 1-A Rook is below 500 feet. No. 2 Rook is below 755 feet. No. 1 C. Heard has started drilling. The Houston-Gulf Gas Co. is shutting in Nos. 1 and 2 Lambert.

In Bastrop County, the Cardinal Oil Co.'s No. 1 at String Prairie is reported to show gas at 4,165 feet. The bit went into 40 feet of sand and shale. It is the deepest test in the history of the county.

Rockdale-Minerva

In the shallow sand section of Milam County, Fritz Fuchs is starting Nos. 2, 3 and 4 Roark, near the Williamson County line. The Bartlett Production Co. is drilling No. 6 Coulter, W. W. Bynum's Nos. 1 and 2 Hook, and the Earnest Oil Co.'s No. 5 Hamilton. Roundtree and others' No. 6 Fee is drilling, as is Ellison Oil Co.'s No. 2 Kevil, Clear Lake Oil Co.'s No. 5 Coulter, and Chicago Oil & Land Co.'s No. 3 Gaither.

The Magic Oil Co.'s No. 1 Phail, Walker County is shut down at 650 feet.

L. F. Sprague's No. 1, 4 miles west of Willis, Montgomery County, is temporarily shut down below 3,320 feet.

Miscellaneous

The runs of the Magnolia Petroleum Co. from the Luling Field during August were 146,129.78 bbls. The company ran a total of 181,079.13 bbls. from the Lockhart Field during the same month, and 9,940.55 bbls. from the Laredo districts.

The Traders Oil Co.'s No. 2 Bissonnett, a worked-over hole on the northwest side of the Humble Pool, is flowing

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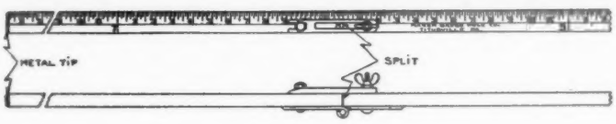

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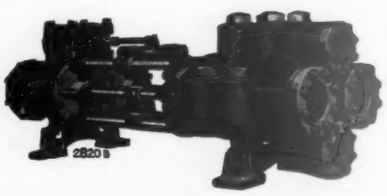

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500 bbls. at 4,200 feet. The gravity is 31 Baume, which is unusually high for the Coastal country. No. 1 Bissonnett was a small well of unusually low grade crude.

In Harris County, near Elena, Bancroft and others' No. 1 Haney is drilling around 1,800 feet. Brooks and Quinn's No. 1 is fishing, with bottom of the hole around 1,600 feet. A derrick is up for No. 2. Wright and others' No. 1 Hunt is shut down.

In Live Oak County, the Houston Oil Co.'s No. 11 Cartwright is setting casing around 1,700 feet. No. 12 Cartwright is drilling at 1,400 feet, and No. 13 Cartwright is rigging. No. 13 is located 2,400 feet northwest from No. 10, completed as a 30,000,000-foot gasser.

KANSAS FIELDS

(Continued from Page 44)

Oil Co. has completed No. 3-A, SE cor. NE Section 9-33-3. Sand was 2,555-72 feet, and the well is swabbing 20 bbls. of oil and water.

In the Rainbow Bend Pool, the owners, Waite Phillips Co., Independent Oil & Gas Co., Marland Oil Co., have the following operations: No. 5, SW cor. SW Section 16-33-3; No. 10, NW cor. NW Section 21-33-3; No. 11, SW cor. NW NW Section 21-33-3; No. 12, NW cor. SW NW Section 21-33-3; No. 13, NW cor. SW NW Section 21-33-3, and No. 14, SE cor. SW NW Section 21-33-3, are spudded. The rig is up for No. 1, SW cor. SE NW Section 21-33-3.

The J. A. Hull Co. has a rig up for No. 12, NW cor. SW SE Section 24-32-4. It has completed No. 1, SW cor. NW Section 19-32-5. Sand was 2,980-3,060 feet, and the well is now making 85 bbls. a day. It has been shot with 10 and with 20 quarts. Duffield and others have spudded No. 1, NW cor. SW Section 19-32-5.

Sumner County

Champlin Refining Co.'s No. 1-A, SE cor. NW NE Section 8-30-2w, had the lime 3,068-3,070 feet, and the hole filled up 250 feet with oil in one hour. The well is making one bailer of water an hour.

Butler County

Lewis Oil Co. has completed No. 1, SE cor. NW Section 32-26-6. Sand was 2,770-91 feet, and the well was shot with 30 quarts and is good for 40 bbls.

Ramsey Refining Co. is drilling at 450 feet in No. 1, NW cor. NW Section 14-23-7. Vickers Petroleum Co. has spudded No. 2, SW cor. NW SE Section 12-24-3. Skelly Oil Co. is shut down for casing at 800 feet in No. 1, NW cor. NW Section 13-25-3. Dewey Byers and others have a rig in for No. 1, NW cor. NE SW Section 25-24-7. Harwood & Winters have a dry hole in No. 1, SW cor. SW Section 35-24-7. It is abandoned at 2,710 feet. Rhodes & Abel have abandoned No. 1, SW cor. NW Section 9-24-8. It is dry at 2,626 feet. Neelly Oil & Gas Co.'s No. 2, SE cor. NE Section 23-26-7, is dry and abandoned at 2,769 feet. Joe Ligget is spudded and shut down in No. 1, SW cor. NE Section 36-27-6. Mid-Kansas Oil Co. has a rig up for No. 2, SW cor. SE NE Section 22-27-7. Boyle and others' No. 1, NE cor. SW SE Section 22-27-7, is swabbing 150 bbls. from sand 2,704-11 feet. It is not completed. Flack, Davidson and others have rigged up No. 1-A, SW cor. SE NW Section 23-27-7. Tom Miller has completed No. 1, NW cor. NE SW Section 29-26-8. Sand was found 2,753-66 feet and the well is making 60 bbls. naturally. John Rogers' No. 1, NW cor. SW Section 29-26-8, had sand 2,660-2,705 feet, and is pumping 40 bbls. of oil and 75 bbls. water, and No. 1-A, SW cor. Lot 25, Section 6-27-8, is spudded.

Greenwood County

The Greenland Oil Co. has completed No. 10, SE cor. NE Section 10-23-9. Sand was 2,314-45 feet, and the well was heavily shot with 210 quarts and is good for 60 bbls. Skelly Oil Co. & Emerald Oil Co.'s No. 5, NE cor. NW NE Section 15-23-9, had sand 2,330-40 feet, and made 135 bbls. after a shot of 20 quarts. Phillips Petroleum Co.'s

(Continued on Page 114)

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30,000 acres land, 92 per cent oil, mineral, two large structures, nearby producing wells, two large companies drilling 2,000 to 3,300 feet. Some bargain. $1.50 cash acre, one year; long time balance. Hundreds acres irrigated; adjoining county seat, Montana. Furnish geological report. Write, wire, today. R. R. Forward, Duluth, Minn.

FOR SALE — Proven gas acreage in Lincoln, Putnam and Cabell Counties, West Virginia. Foote Oil & Gas Co., Inc., Cuba, N. Y.

WILDCAT

We have a large tract of land in Cherokee County, Texas, that has been passed upon by a prominent geologist as being a first-class prospect for oil. We will give reasonable amount of acreage for a test well. If interested, write and we will give you details. P. O. Box 67, Jacksonville, Tex.

OIL AND GAS LEASES

Marathon Fold—West Texas

12,000 acres University Permits, Pecos County, dated October 1, 1924, 5 years. The new law makes these permits most attractive. Can be subdivided into 40-acre tracts. Near Sun, Gulf, Dixie, California Company, Phillips, Arkansas Fuel, Humble holdings.

10,000 acres Crockett County. Large and small blocks; adjoining big companies; scattered wildcat; also close-in adjoining World well block.

20,000 acres, 10-year leases; low rentals; Terrell County. Getting good play. Watch this country. Prices right.

5,000 acres Upton County. Scattered tracts; blocks for drilling.

60,000 acres, one-block Southeast Pecos County, on geological formation. Most attractive as to desirability, price and terms.

2,000 acres, Irion County, 10-year lease; watch the new work here.

12,000 acres, Loving County; 10-year lease, 10-cent rental.

Write for prices and maps. Will allow time for geological inspection.

C. W. WEBSTER

W. T. Waggoner Bldg. Ft. Worth, Tex.

Reference Mercantile Agencies

THE ORGANIZATIONS that get the bulk of the oil industry orders are those who are known to the industry and who can combine quality with speedy service.

If you had your equipment listed in this section it would receive the same consideration that thousands are giving the good equipment advertised here.

IN PECOS VALLEY of southeast New Mexico, 40-acre lease on Comanche Dome structure, between two drilling tests now nearing expected pay sand. For quick action $2 per acre subject. New Mexico Land & Development Co., 760 Gas & Electric Bldg., Denver, Colo.

MEDINA COUNTY, TEXAS.

Farms—Ranches—Oil Leases—Royalties.

O. H. Miller, Hondo, Tex.

WEST TEXAS Marathon Fold oil leases. Personal investments since 1919. Write for data and maps. Paul Konz, P. O. Box 291, Fort Worth, Tex.

CHOICE ACREAGE—New Mexico, Colorado, Hiwatha, Piney, LaBarge, Wyoming. Either sell outright or lease to responsible promoters or operators. Cash or royalty. Hartman, Symes Bldg., Denver, Colo.

WE OFFER choicest gas territory in Pennsylvania for lease. Write S. J. Brendel, 704 Peoples Bank Bldg., McKeesport, Pa.

ROYALTIES—PRODUCTION

GULF COAST ROYALTIES

GREEN'S BAYOU, HARRIS COUNTY

1/64th perpetual mineral interest under 427.25 acres, Erwin Survey.

1/96th perpetual mineral interest under 110 acres, Erwin Survey.

1/64th perpetual mineral interest under 320 acres, Anderson Survey.

Formation tests have been drilled and deep well to be drilled at once by Texas Co. on property.

JEFFERSON COUNTY

1/96th over-riding royalty under 10,267.49 acres vicinity McFarland League solidly blocked by Texas Company, Humble, Gulf and Sun Companies.

Formation tests drilled and deep well to be drilled on this block by Texas Co. beginning October 1st.

GALVESTON COUNTY

1/96th over-riding royalty under 10,190.85 acres.

This land under lease to Texas Co., Gulf and Humble Co., and formation tests and geophysical methods to be applied.

Will group and sell detailed interest outlined above, which represents ½ our holdings in these areas for $15,000.00. A rare opportunity for a wide spread gamble with possibilities of ample returns. Address

927-8 BANKERS MORTGAGE BLDG., Houston, Texas.

GARFIELD COUNTY, OKLAHOMA

Leases—Royalties

Close in.

P. O. Box 212, Enid, Okla.

ROYALTY INTERESTS

Royalty Deed covering an undivided 1-64 interest in 40 acres offsetting well now drilling for $100. Excellent geological structure. Test well under contract to go 3,500 feet. You cannot beat this for a good gamble. A. F. Boudreau, P. O. Box 464, Sapulpa, Okla.

ADVERTISING RATES

	1 Time	2 Times	3 Times	1 Mo.
3 lines	1.05	1.80	2.55	3.30
4 lines	1.40	2.40	3.40	4.40
5 lines	1.75	3.00	4.25	5.50
6 lines	2.10	3.60	5.10	6.60
7 lines	2.45	4.20	5.95	7.70
8 lines	2.80	4.80	6.80	8.80
9 lines	3.15	5.40	7.65	9.90
10 lines	3.50	6.00	8.50	11.00

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Compute white space at the above rates

Mail your advertisement to

THE OIL AND GAS JOURNAL

Tulsa, Oklahoma

J. F. MARION COMPANY

Magnolia Building

Dallas, Texas

Buys and Sells

Texas Royalties

"Ask Us First"

WE OFFER the choicest acreage and royalties in the Garber Field; wire or write John W. Courtney, 407 N. Grand, Enid, Okla.

ROYALTIES—PRODUCTION

KAY COUNTY ROYALTY CO., INC

Ricks Building, P. O. Box 954

Tonkawa, Oklahoma

Dealers in Northern

Oklahoma Royalty

Individual Title Delivered

on Units $100 and Up.

Reference Bank of Commerce

Tonkawa, Oklahoma

EQUIPMENT WANTED

WANTED — Forty h.p. direct connected Vacuum Pump, or air compressor, Pattin Bros. or Bessemer. Box A-931, The Oil and Gas Journal, Tulsa, Okla.

WE BUY short ends and job lots of new pipe from ⅛" to 12" in diameter. Twin City Steel Mfg. Co., 2652 So. 34th Ave., Minneapolis, Minn.

FOR SALE—EQUIPMENT

DRILLING OUTFITS

IN NEW MEXICO

Star machine and complete string of tools for sale cheap, located near Farmington, New Mexico. Address for particulars, Box A-930, The Oil and Gas Journal, Tulsa, Okla.

FOR SALE AT A BARGAIN

One standard "A" rig, (6-in. Ideal irons) steel wheels and block, and all tools and cordage complete, including three underreamers, 12 by 12 Oilwell engine and boiler, and enough California long collar casing from 16-in. down to put down 3,000-foot well. All in excellent condition. Detail list of equipment will be furnished on request. Address F. R. Jones, Mattoon, Ill.

FOR SALE—Joplin Special Drilling Machine, with tractor equipment, and tools, near Coweta; and 1 special Star machine, with separate tractor, and tools, near McBride, Oklahoma. Must be sold, easy terms. J. L. Haner, 105 McKibban Bldg., Muskogee, Okla.

ENGINES—COMPRESSORS

ENGINES AND TRACTORS FOR SALE

Several carloads gasoline and kerosene standard make engines. Some on steel wheels, steel trucks, several baby gasoline tractors. Sacrifice. Alternating motors—2—150 h.p., 440 and 2,200 volt; 600 and 900 speed, Westinghouse make. Used slightly—very cheap.

Surplus stocks and lots of hardware, insulated wires, radio materails and electrical supplies and machinery bought for cash.

CONSOLIDATED WIRE AND MACHINERY CORP.

309 Fifth Ave. New York, N. Y.

GAS ENGINES

For Sale

Two Bessemer gas engines, 10- and 15-h.p.; can be seen operating steadily; good condition; Wico starter attachment; reason for selling, changing to motors; bargain for quick sale.

KERR, HUBBARD & KELLY

Sand Springs, Okla.

COMPRESSOR for sale; 250 to 300 lbs. pressure for use in cracking gasoline, Ingersoll-Rand Imperial Type 10, size 18x9x20, rated displacement 877'—two stage; including unloaders, lubrication system, intercooler, etc. Guaranteed A-1 condition. Price net f.o.b. San Francisco, $3,000. U. S. Machinery & Steel Co., 750 Folsom St., San Francisco, Calif.

PIPE—TUBING—CASING

OFFERED subject to prior sale, four miles of 4-in., 10.8-lb. used line pipe, A-1 condition. Wire for price and shipment to

W. F. GLASS & CO.

Newark, Ohio

35 CENTS a line first insertion; 25c a line each additional insertion. Cash in advance.

CLASSIFIED WANTS

CREATE AND BUILD BUSINESS

MAIL your advertisement now. It will be published next week. Cash with order.

FOR SALE—EQUIPMENT

PIPE—TUBING—CASING

FOR SALE—15 miles of 12-in. second-hand oil line pipe, and 8 miles of 8-in. second-hand oil line pipe, all with good threads and couplings. This pipe is in A-1 condition. For further particulars address
OHIO IRON & SUPPLY CO.
Lima, Ohio

MISCELLANEOUS

BOILERS AND ROTARY RIGS

One 85 h.p. Erie special, oil field type boiler $600
One 66 h.p. Lucey Mogul, oil field type boiler $500
Two 45 h.p. Erie regular, oil field type boiler .....$400 ea.
Two Johnson, Louisiana model, Rotary Drilling Rigs .....$7,000 ea.
One Union Tool, No. 3, Rotary Drilling Rig $8,000
One Union Tool, No. 5, Rotary Drilling Rig $12,000
All material in first-class condition, and ready to go. Would lease either or all of the drilling rigs to responsible parties. Union Tool No. 5 has 6-in. drill pipe and twin engine. Communicate with owners, 801 Travis Building, San Antonio, Tex.

FOR SALE — All kinds of second-hand machinery. We buy and wreck all kinds of plants. Send us your inquiries. THE ACME FOUNDRY & MACHINE CO.
Coffeyville, Kans.

UNIVERSAL DEEP WELL DRILL BIT
Selfsharpening, selfclearing, indestructible, continuous in drilling, cuts granite. G. Griesche, 2315 Carlton St., Berkeley, Calif.

OILPROOF and waterproof leather belts "Waterwitch" brand for refineries and natural gasoline plants. They wear longest. Manufactured by N. Palmer Belting Co., Bridgeport, Conn.

THE OIL and Gas Journal is read in Peru, China, Africa, Guatemala, Egypt, Alaska, Persia, Roumania, Spain, Switzerland, Czecoslavakia — everywhere. In fact, wherever there's oil, there are men reading The Oil and Gas Journal—"The Oil Man's Bible."

REGULATE your gas fired boilers automatically with Wilgus Gas Burner Regulators. Wilgus Manufacturing Co., 1722 E. 16th St., Los Angeles, Calif.

FOR SALE REFINERIES

WONDERFUL OPPORTUNITY to buy, or lease oil refinery. Write 17 Dunn, Great Falls, Mont.

REFINERY FOR SALE

Complete 500-barrel-a-day plant at Bowling Green, Ky., operated three years. Good as new. Will sell all or part.
Two 3200-bbl. riveted steel tanks.
One 1200-bbl. riveted steel tank.
Two 1000-bbl. bolted steel tanks.
Six 320-bbl. riveted steel tanks.
Six 250-bbl. riveted steel tanks.
Four 100-bbl. welded steel tanks.
Two carloads of 250-bbl. wood tanks.
Write the Tracy Supply Co., dealers in used oil well supplies, Bowling Green, Ky.

FOR SALE—500-bbl. refinery, well located. Local distributor will take entire output of gasoline. Liberal terms. First National Bank, Fort Smith, Ark.

HUNTING

HUNT Mountain Sheep, Elk, Deer, Bear. First-class guides. Rates $25-$35 per day. The Flying H. Ranch, Dean, Montana. Telegraph Absarokee, Ry. Station Columbus.

SUMMER RESORTS

AN OPPORTUNITY TO BUILD YOUR BUSINESS

Every week more than 25,000 men in oil fields, refineries, pipe line stations, gasoline plants and supply stores read the advertisements in The Oil and Gas Journal.

These readers are of the highest type and have not only the inclination but also the means to buy in large quantities.

Place an advertisement in the Classified Wants Section so these readers can become acquainted with your products or want. It will help you.

The price is very reasonable. It costs but 35 cents a line for the first insertion and 25 cents a line for each additional insertion. A five-line advertisement can be run a month for $5.50.

CLASSIFIED WANTS SECTION

THE IROQUOIS INN—Bolton Landing, Lake George, N. Y. Beautifully situated near the entrance to the Narrows. Boating, bathing and dancing. Home cooking. Mrs. L. H. Moore, Proprietress.

HOTELS

MAKE YOUR headquarters at Hotel McGilless while in Farmington, New Mex.

HOTEL HOYT — Sixth and Hoyt, Portland, Ore. Make it your northwestern headquarters. Write for information.

PATENT ATTORNEYS

REGISTERED PATENT ATTORNEYS
United States and Canada
Before disclosing your invention to anyone, send for blank form
Evidence of Conception
Bulletin "How to Establish Your Rights," and complete information free.
LANCASTER AND ALLWINE
240 Ouray Bldg. Washington, D. C.

PATENTS

PATENT-SENSE—Valuable book free for inventors seeking largest deserved profits. References include prominent oil men. Write Lacey & Lacey, 718 F. St., Washington, D. C. Established 1869.

LETTERHEADS—PRINTING

CONSUMERS' LEDGERS
We are prepared to furnish from stock standard forms of gas meter Consumers Ledgers. Sample forms and quotations on request. First class material and workmanship.
DERRICK PUBLISHING CO.
Oil City, Pa.

OIL FIELD LEGAL BLANKS—Leases, assignments, releases, township books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

POSITION WANTED

CHEMIST—University graduate with 10 years experience in practical refinery work—thorough plant supervision and laboratory control—development and research—economical distillation and treatment for all finished products—grease make—efficient handling of plant and men. Good references. Address Box A-891, The Oil and Gas Journal, Tulsa, Okla.

POSITION WANTED

PRIVATE Secretary seeks change; now chief clerk production, major company; traffic experience. Address 1235 S. Detroit, Tulsa, Okla.

REFINERY Superintendent and construction man; 13 years' practical experience in all departments, including wax, lubs and cracking. Anything with a future considered. Box A-932, The Oil and Gas Journal, Tulsa, Okla.

REFINERY BUILDER AND OPERATOR
Experienced, practical constructor and operator, 17 years in petroleum industry, good executive and organizer, low construction and operating cost; desire connection with established company or someone intending to start in the refining business. Can take full charge. Box A-855, The Oil and Gas Journal, Tulsa, Okla.

MARRIED MAN—Age 35 years, desires position as drilling superintendent or foreman; 18 years' experience in all fields of U. S. A., Burma, Java, Sumatra, Venezuela and Poland. Both cable and rotary experience. Can handle the job from the location stake to running of production in storage. Strictly temperate; can furnish best of references; will go anywhere. Box A-910, The Oil and Gas Journal, Tulsa, Okla.

HELP WANTED

OIL REFINERY wants two technical graduates with some experience, must have intelligent initiative thorough technical foundation, practical ability. One to be chemical or mechanical engineer for design and construction, other chemical engineer or chemist for plant investigation. Give full details, age, education, experience, also photo. Box 1489 Fort Worth, Tex.

EXECUTIVE, ENGINEERS, $3,000-$25,000, find our individual, confidential service effective in making new connections. Personally conducted by Mr. Jacob Penn, the eminent employment authority, known to leading business men throughout America. Not employment agency. Jacob Penn, Incorporated, 305 Broadway, New York City, N. Y.

WANTED

PRODUCTION WANTED—500 barrels or more per day of emulsified oil to clean on royalty basis. H. C. Dahl, 127 Grand Ave., Long Beach, Cal.

ADVERTISING RATES

	1 Time	2 Times	3 Times	1 Mo.
3 lines	1.05	1.80	2.55	3.30
4 lines	1.40	2.40	3.40	4.40
5 lines	1.75	3.00	4.25	5.50
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THE OIL AND GAS JOURNAL

Tulsa, Oklahoma

WANTED

WE WILL buy diamonds (Brazilian carbons); also Star, Rotary or cable oil well drilling tools. St. Louis Exploration Co., 5790 Kingsbury Place, St. Louis, Mo.

WANTED—Producing royalties Oklahoma and Kansas. Give full details. P. O. Box 502, Independence, Kans.

SHALLOW Kansas production would trade for Florida land. Address Production, 301 E. 7th Avenue, Tampa, Fla.

WANTED—Party to complete an oil well in Mississippi on any reasonable terms. Present depth over 5,000 feet. Geologist's report favorable. M. W. Haney, Geer, Va.

Through the Classified Wants Section you can interest 25,000 oil men in your product or want. Mail your advertisement now for next week's issue. It doesn't cost much!

BUSINESS OPPORTUNITY

CORE-DRILL your structure before putting cable tools at work. It will save you time and money. St. Clair Exploration Co., Diamond core-drill contractors. Established 1903. Geo. H. St. Clair, Mgr., Minneapolis, Minn.

STOCK SELLING

Corporations desiring capital for promotion, development or expansion are invited to communicate with the undersigned.

Courteous considerations; prompt action; established reputation, complete facilities for campaigns of any size.

WILLIAM R. THURSTON

33 West 42nd St. Telephone
New York City Longacre 4990

HAY FEVER
If suffering with Hay Fever get a bottle of L. E. P. Liquid or 25c jar of L. E. P. Balm from your druggist
Apply in nostril with tip of finger and inhale
Made by
L. E. P. MFG. COMPANY
Sterling Kans.

OPPORTUNITY—Will lease up to half million acres for you on well defined series of structures in one county, worked over by three well known geologists, will handle on salary basis, plus 10 per cent of net profits derived from development, investigation invited. Address W. S. C. 345 South Franklin, St., Denver, Colo.

CAN USE additional capital to develop West Texas oil properties. We offer an excellent opportunity to small and large investors to make big money with original investment amply safeguarded. The plan of operation is a proven successful one. Details furnished at your request.
ADAMS AND WILBERN,
"30 years' experience in Oil."
Oil Operators.
P. O. Box 1357, Fort Worth, Tex.

PRIVATE OWNER will sell a $1,000,000 Pittsburgh mansion for $550,000. A big bargain; 36 rooms. Three years to build. For further particulars write Box 1509, Pittsburgh, Pa.

Additional Classified Want Advertisements on following page

35 CENTS a line first insertion; 25c a line each additional insertion. Cash in advance.

CLASSIFIED WANTS

CREATE AND BUILD BUSINESS

MAIL your advertisement now. It will be published next week. Cash with order

CONTINUED FROM PRECEDING PAGE

BUSINESS OPPORTUNITY

ATTENTION, NATURAL GAS PRODUCERS

We figure orifice and proportional meter charts accurately. Prices reasonable. Send us your work. Thirty years' experience.

BERWALD & BERWALD
Natural Gas Engineers
108 Main St. Bradford, Pa.

DO YOU NEED MONEY for organizing or financing oil or mining deals? Write 35 E. Tenth, Oklahoma City, Okla.

LAND OWNER will trade oil lease for registered dog. Box 1, Oklahoma City, Okla.

BUSINESS OPPORTUNITY

THE ORGANIZATIONS that get the bulk of the oil industry orders are those who are known to the industry and who can combine quality with speedy service.

If you had your equipment listed in this section it would receive the same consideration that thousands are giving the good equipment advertised here.

ADVERTISING RATES

	1 Time	2 Times	3 Times	1 Mo.
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THE OIL AND GAS JOURNAL

Tulsa, Oklahoma

ADDRESSES WANTED

WANTED to know the address of Bob Sisk, last heard of west of Tampico, Mexico. Please write A. P. Gilliland, R. R. 1, Boonsville, Tex.

MAIL LISTS

MAILING LIST—HAND PICKED
Business producers, investors with money, mail order buyers, school teachers, students, manufacturers, automotive prospects. Detailed list showing 1,000 others free.
FAULTLESS ADVERTISING SERV.
3514 Rhodes, Room 42 Chicago, Ill.

INCORPORATIONS

CHARTERS—Delaware best, quickest, cheapest, most liberal. Free forms. Colonial Charter Co., Wilmington, Del.

IN READING The Oil and Gas Journal you will be taking the best means possible to keep yourself acquainted with the progressive developments and changes that are continually going on within the industry.

HAVE Continuous Cracking Process that will run 40 per cent straight from still New Navy gasoline from topped crude or gas oil. This is a shell still pressure 75 pounds; temperature, 700 Fahrenheit. This process has never been on the market. Wish to interest capital to market it. Box A-933, The Oil and Gas Journal, Tulsa, Okla.

OIL WELL INTEREST
We offer an offset 40 acres and a one-eighth interest in drilling well near Farmington, San Juan County, New Mexico, to any one who will deepen well 200 feet. Machine and tools on ground. Here is a chance to get quick action and handle your own money. For full particulars address A-934, The Oil and Gas Journal, Tulsa, Okla.

LEAD AND SILVER
producing mine, 100-ton mill now working 20 men, should be 50. Have a good proposition for party or parties with $15,000 and ready to do business. Will control the deal with you. Should make $75,000 inside year. Owner, 737 Pennsylvania St., Denver, Colo.

RAISE from $10,000 and up for any proposition. Write Renik, 61 Pulaski, Buffalo, N. Y.

SAN ANTONIO MANSION—On prettiest corner on Laurel Heights, overlooking entire city; 15 rooms, beautiful galleries and grounds, solid brick both outside and inside walls, beautiful trees and shrubbery. Value $100,000. Reduced for quick sale to $60,000. W. J. Long, Realty, 410 Gunter Building, San Antonio, Texas. Exclusive agents.

DELAWARE incorporators. Charters, fees small, forms. Charles G. Guyer, 901 Orange St., Wilmington, Del.

FOR SALE—MAPS

ABSTRACT MAPS
Copyrighted

Gives lease and royalty owners, addresses, expiration date, oil development, Government bench marks, and complete information on restricted Indian lands. Made in township units. As map gets out of date it may be exchanged for new one showing all changes in ownership and development for one-tenth original cost. Covers all live areas in Oklahoma and Kansas.
Famous throughout the oil fields.

MID-CONTINENT MAP COMPANY
Dept. A., Bank of Commerce Bldg.
Tulsa, Okla.

FOR SALE—DOGS

BEAUTIFUL registered bull pups cheap. Tonn, 501 Rockwood, Dallas, Tex.

"BERITE"
U.S. TRADE MARK 160836
It Puts More Oil in the Tank

Mr. Oil Producer, do you want to get rid of your paraffin trouble and increase your production? If so try "BERITE" a non-explosive and non-inflammable chemical that removes paraffin asphaltum, etc., from oil and gas wells.

Write for particulars.

BERWALD CHEMICAL CO.
BRADFORD, PA.
SOLD BY LEADING SUPPLY STORES

HAVANA
DOUBLE GRIP—
Friction Clutch

A double grip friction clutch—simple, durable and easily attached.

"Too tough to break." Satisfaction guaranteed.

Made to fit all Gasoline and Kerosene Engines.

Sizes 1½ H. P. and up. When others fail try the Havana. Handled by all leading jobbers.

HAVANA MANUFACTURING CO.
117 N. Pear St. Havana, Ill.

MYERS
SELF-OILING BULLDOZER
POWER PUMPS

A success in every field of service—Myers Self-Oiling Power Pumps have triumphed, and the number in use has increased in proportion to the satisfactory service they have rendered.
Recognized from the first as a far advance in power pump construction—copied from the first because of their radical departures in design, special improvements and method of operation—they stand supreme today. Self-oiling, enclosed working parts, improved method of power application, extra large valves, make possible a new standard of power service not approached by old types of power pumps.
Twelve sizes for shallow service—five sizes for deep service—the complete line is fully illustrated, described and listed in Catalog No. 8025, a copy of which with complete information will be sent to anyone having pumping problems to solve.

THE F.E.MYERS & BRO.CO. Ashland, Ohio.
MANUFACTURERS FOR OVER FIFTY YEARS OF MYERS "HONOR-BILT" PUMPS FOR EVERY PURPOSE • WATER SYSTEMS • HAY UNLOADING TOOLS AND DOOR HANGERS

"Your Old Friends"

You often find yourself thinking or talking about your old friends whom you knew in Pennsylvania, New York, Ohio, or West Virginia.

You wonder if they are in California, Oklahoma, Kansas, Texas, Wyoming, etc. You would like to hear from them.

Your friends read the Classified Section every week, thus giving you a good chance to get in touch with them.

A small advertisement, asking for their whereabouts, etc., would put you in touch with them.

Try to get in touch with them this week.

THE OIL AND GAS JOURNAL

EASE of regulation and repair and the highest degree of dependability are combined in the Davis Float Box. The head and working parts are quickly and easily removable as a unit. The piping connections are not disturbed.

The lever is amply long to provide sufficient power to operate a valve of any size and give positive action. And, moreover, the entire mechanism is located on the outside of the tank, where it is most readily accessible. The Davis Float Box best solves the problem of maintaining the oil level in flow tanks and separators.

The Davis Float Box is of the same high quality as the Davis Supersensitive Relief Valve and the Davis Casinghead Gas Regulator.

G. M. DAVIS REGULATOR COMPANY
409 Milwaukee Ave., Chicago, Ill.

Westcott & Greis, Inc., Sales Engineers
Tulsa Los Angeles Dallas

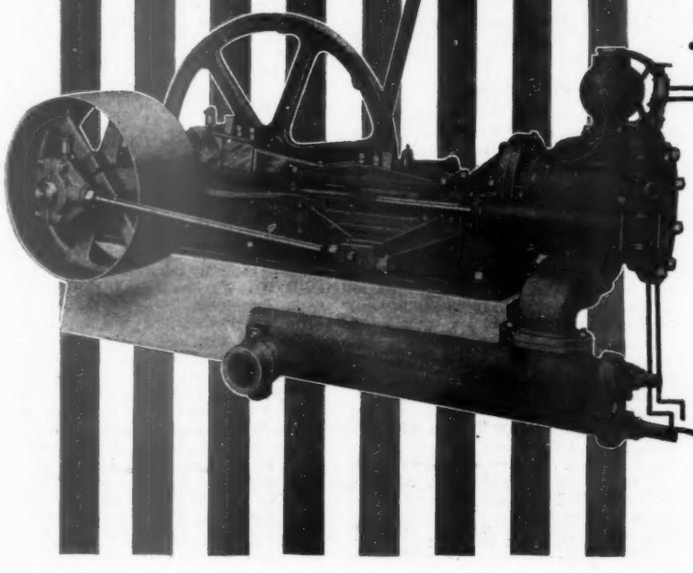
DAVIS VALVE SPECIALTIES

1875—Valve Makers for Fifty Years—1925

OGJ9-17B-RTG

Bovaird & Seyfang

STEAM DRILLING ENGINES



The new Class C-1 Steam Engine illustrated is the latest BOVAIRD & SEYFANG development in Steam Engines, and was first placed on the market in 1924—*Renewable Babbit Liners,* balanced slide valves, out board bearing, 3" throttle valves—are a few of the many features of this engine that will meet with your approval. All parts except the cylinder, cylinder head, piston and rings are interchangeable. Made in sizes 23, 25, 28 and 30 H. P.

Descriptive bulletins and prices will be sent on request.

Carried in stock at all Bovaird Supply Co. stores.

BOVAIRD & SEYFANG MFG. CO.
Bradford, - - - Penna.

EASTERN FIELDS

(Continued from Page 108)

No. 1, SW cor. NW SW Section 19-23-9, had sand 2,560-2,618 feet, with 150 feet of oil in the hole natural. It was shot with 110 quarts and is good for 350 bbls. Syndicate Oil Co.'s No. 1, NW cor. SW Section 1-22-10, is dry and abandoned at 2,172 feet. Richie & Moore's No. 1, SE cor. SW NE Section 11-22-10, is dry and abandoned at 2,250 feet. Phillips Petroleum Co.'s No. 3, SE cor. SW SW Section 12-22-10, had sand 2,172-96 feet, and was shot with 60 quarts. It is making 200 bbls. Phillips Petroleum Co. has a dry hole in No. 4 CSL NE SE SW Section 12-22-10. Total depth is 2,348 feet. The Texas Co.'s No. 1, NW cor. SW Section 29-22-10 had sand 2,404-35 feet, with 1,900 feet of oil in the hole natural. It is estimated at 250 bbls. after a shot of 60 quarts. The casing parted and is being fished out.

Titus and others' No. 7, SW cor. NE NE Section 30-22-10, had sand 2,492-2,545 feet, and is good for 15 bbls. after a shot of 150 quarts. Murphy and others have a dry hole in No. 7, SW cor. NW SW Section 2-23-9. It is abandoned at 2,438 feet. Roth Faurot and the Mission Oil Co.'s No. 1, NE cor. NW NE Section 19-23-10, is completed for 12 bbls. after a shot of 20 quarts in sand 2,297-2,300 feet. Mission Oil Co.'s No. 4, SE cor. NW SW Section 23-23-10, had sand 2,102-65 feet, and is doing 10 bbls. after a shot of 80 quarts.

Hazlett and others have abandoned No. 6, NW cor. SE SW Section 7-22-11, at 2,150 feet. White Eagle Oil Co. has completed No. 8 NE cor. SE NE Section 12-22-11. Sand was 1,771-1,831 feet, and the well is making 200 bbls. after a shot of 160 quarts. Empire Gas & Fuel Co. has completed No. 5, CSL SW NW NE Section 14-22-11, where sand was 1,853-1,917 feet, and the well is good for 165 bbls. after a shot of 195 quarts. York State Oil Co.'s No. 2-D, CSL SW SE SW Section 29-22-11, had the pay sand 1,942-88 feet, and pumped 145 bbls. oil and 140 bbls. water; No. 13-C, NW cor. NW Section 32-22-11, is dry and abandoned at 2,045 feet. Pure Oil Co.'s No. 1, CSL NE NE SE Section 8-23-11, had sand 1,925-71 feet and was shot with 120 quarts. It is doing 45 bbls. Mid-Kansas Oil Co.'s No. 7, NW cor. NE NW Section 3-25-9, had sand 2,182-2,249 feet, and is doing 100 bbls. after a shot of 200 quarts. Polhamus and others have completed No. 7, C south half NW Section 3-25-9. Sand was 2,802-10 feet, and the well pumped 40 bbls. oil and 14 bbls. water the first day.

Other Greenwood Operations

Rogers and others have a dry hole in No. 2, CSL NE NE SW Section 9-25-9, which is abandoned at 2,447 feet. Mississippi Valley Oil Co. has a failure in No. 1, SE cor. SW SE Section 14-25-10. It is dry and abandoned at 1,900 feet. The Texas Co.'s No. 1, NW cor. NE SE Section 30-24-11, is dry and abandoned at 2,140 feet. Prairie Oil & Gas Co. has completed No. 1 NE cor. SE Section 16-24-13. Sand was 1,606-39 feet and the well is good for 20 bbls. after a shot of 80 quarts. Lewis & Landon have a 10-bbl. well in No. 1 NW cor. SW Section 5-25-13. Sand was 1,586-1,651 feet, and the well was given a shot of 200 quarts. Magnolia Petroleum Co. has a dry hole in No. 1 NW cor. NW Section 22-26-9. It is abandoned at 2,807 feet.

Phillips & Conway have completed No. 2, NE cor. SE SE Section 3-23-9, sand was 2,390-2,400 feet, and the well is making 35 bbls. after a shot of 140 quarts. Greenland Oil Co. has the rig up for No. 18, NW cor. NE SE Section 10-23-9. Mission Oil Co.'s No. 3, NE cor. SE SW Section 19-23-9, had sand 2,562-2,602 feet, and was shot with 50 quarts. It is doing 300 bbls., and the rig is build for No. 5, NE cor. SE SW Section 19-23-9. Phillips Petroleum Co.'s No. 2, SE cor. NE SW Section 19-23-9, had sand 2,553-97 feet, and is making 350 bbls. after a shot of 120 quarts, and No. 1, NE cor. SW Section 20-23-9, made 98 bbls. on the pump after a shot of 15 quarts in sand 2,536-63 feet. White Phillips Co. has spudded No. 1, SW cor. NE SW Section 36-22-9. Davis, Hazlett and others' No. 7, NE cor. SE Section 12-22-10, had sand 2,055-2,115 feet, and is making 125 bbls. on the swab. It is not completed. Theta Oil Co.'s No. 12, NW cor. NE NE Section 17-22-10, is swabbing 50 bbls from sand 2,210-2,310 feet, and will be shot. Sinclair Oil & Gas Co. has completed a big well in No. 19, NE cor. NW SW Section 20-22-10. Sand was 2,255-2,329 feet, and the well made 450 bbls. after a shot of 120 quarts; No. 26 CSL NE Section 20-22-10, is estimated at 500 bbls. in sand 2,275-2,345 feet and will be shot. The rig is up for Sinclair Oil & Gas Co.'s No. 28, NE cor. SW NW Section 20-22-10. White Eagle Oil Co. is drilling at 900 feet in No. 11, NE cor. NE Section 24-22-10. Titus and others have rigged up No. 5, CWL NW Section 29-22-10, and the rig is on the ground for No. 5, CEL NE Section 30-22-10. Sheedy and others have spudded No. 6, SW cor. NW Section 11-23-9. Noble Oil & Gas Co. is drilling at 1,250 feet in No. 2, SE cor. SE SW Section 1-22-11. Davis, Hazlett and others are drilling at 1,275 feet in No. 7, SE cor. NW SW Section 7-22-11.

ROCKY MOUNTAIN AREA

(Continued from Page 48)

which came in a duster. The well was on Section 31-15-30, and the hole was carried to 1,800 feet.

The Prairie Oil & Gas Co. is about ready to spud in on its test well on the Mifflin Dome, on the Crow Indian Reservation in Montana. The well will be started with a 20-inch hole, and will be carried to 4,000 feet if necessary. This will mean winter drilling, if present plans of the company are carried out. The Prairie test will be the first well drilled on the structure.

Runs for the Week

Salt Creek	6,846
Teapot	1,470
Big Muddy	3,540
Grass Creek	4,160
Elk Basin	900
Greybull	30
Rock River	3,050
Notches	280
Lance Creek	700
Poison Spider	900
Osage	340
Hamilton Dome	630
Mule Creek	700
Lander	300
Byron	50
Pilot Butte	300
Lost Soldier	5,070
Ferris	110
Cat Creek	3,100
Sunburst	11,750
Rattlesnake	420
Hogback	510
Artesia	2,900
Florence	260
Moffat	2,340
Fort Collins	1,370
Tow Creek	110
Boulder	25
Rangeley	100
Miscellaneous	100
Total	113,975

Field Prices for Month of August

Salt Creek	1,948,240
Teapot	55,706
Big Muddy	105,340
Grass Creek	138,260
Elk Basin	27,710
Elk Basin	920
Rock River	86,470
Notches	6,763
Rex Lake	2,800
Lance Creek	15,400
Poison Spider	35,660
Osage	10,390
Hamilton Dome	19,580
Mule Creek	22,130
Lander	7,880
Byron	1,550
Pilot Butte	8,340
Lost Soldier	76,140
Ferris	3,110
Cat Creek	107,050
Sunburst	319,000
Florence	3,060
Moffat	74,740
Fort Collins	42,210
Boulder	775
Tow Creek	3,700
Rangeley	3,100
Hogback	16,560
Rattlesnake	13,170
Artesia	85,300
Miscellaneous	3,450

OKLAHOMA

(Continued from Page 44)

spudded No. 1, SE cor. SE, Section 26-11-10.

Lincoln County

In the Davenport Pool, the Magnolia Petroleum Co.'s No. 5, SW cor. SW, Section 34-15-5 had sand at 3,392-3,442 feet and was shot with 20 and 50 quarts. It is estimated at 12 bbls. and is not completed. No. 3, SE cor. SE, Section 34-15-5 had sand at 3,400-42 feet and is making one flow each hour. The flow is estimated at 5 bbls. It is not completed. On the same lease No. 5, SW cor. SE SE, Section 34-15-5 is rigged up and shut down for water.

The Independent Oil & Gas Co.'s No. 1, SE cor. NE SE, Section 6-15-6 flowed 115 bbls. from sand at 4,021-22 feet. The well is fighting a cave at 4,108 feet. The Skelly Oil Co. is drilling at 459 feet in No. 3, SE cor. NE NE, Section 7-15-6. Mid-Continent Petroleum Corp.'s No. 2, SW cor. NW NW, Section 8-15-6 is spudded.

The Carter Oil Co. has a rig up for No. 2, SW cor. NW NE, Section 2-14-5. Magnolia Petroleum Co. is drilling at 350 feet in No. 7, SW cor. NE SW, Section 2-14-5. Skelly Oil Co. has the rig up for No. 1, NW cor. SW NE, Section 2-14-5. The Texas Co.'s No. 2, NE cor. SW SW, Section 2-14-5 had sand at 3,309 feet and made 310 bbls. after a shot of 100 quarts. It was drilled deeper to 3,367 feet and shot again with 100 quarts after which it produced 565 bbls. When drilled to its total depth 3,373 feet it flowed 920 bbls. the first day and is now making 795 bbls. The Texas Co. has spudded No. 6, NW cor. SE SW, Section 2-14-5. Twin State Oil Co. has the rig up for No. 5, SW cor. NE NW, Section 2-14-5, and also for No. 6, SE cor. NE NW, Section 2-14-5. Magnolia Petroleum Co. has completed No. 3, SE cor. NE, Section 3-14-5. Sand was at 3,349-3,424 feet and the well made 350 bbls. naturally. Prairie Oil & Gas Co.'s No. 11, NE cor. SW NW, Section 3-14-5 is drilling at 450 feet, and No. 12, SW cor. SE NW, Section 3-14-5 is drilling at 650 feet. Southwestern Petroleum Co. and Selby Oil Co. have completed No. 6, NE cor. NW SE, Section 3-14-5. Sand was 3,360-3,434 feet and the well made 780 bbls. after a shot of 80 quarts.

J. W. McCullough and others have built the rig and will spud this week in No. 1, SE cor. SW, Section 31-12-6.

The Carter Oil Co. has spudded No. 2, SW cor. NW NE, Section 2-14-5. Galvez Oil Co. is building the rig for No. 1, NW cor. SE, Section 2-14-5. Magnolia Petroleum Co. is rigged up and shut down in No. 8, NE cor. SE NW, Section 2-14-5; and the rig is up for No. 9, NW cor. SE NW, Section 2-14-5.

Skelly Oil Co. has spudded No. 1 NW cor. SW NE Section 2-14-5. Twin State Oil Co.'s No. 2 NW cor. NW Section 2-14-5 had sand 3,340-3,424 feet and made 525 bbls. naturally. It is completed. Twin State Oil Co. has spudded No. 6 SE cor. NE NW Section 2-14-5. Magnolia Petroleum Co. has completed No. 4 SW cor. SE NE Section 3-14-5. The well made 200 bbls. naturally from sand 3,358-3,422 feet; and No. 4 SW cor. NE Section 3-14-5 is a 225-bbl. well in sand 3,370-3,424 feet. Southwestern Petroleum Co. and Selby Oil Co.'s No. 5 NW cor. NE SE Section 3-14-5 had the sand 3,328-3,412 feet and made 300 bbls. after a shot of 80 quarts; and No. 8 SW cor. NE SE Section 3-14-5 is spudded.

Creek County

The Tidal Oil Co. has a rig up for No. 1 NE cor. SW NW Section 21-16-8. Young and Whittington's No. 1 NW cor. SW NE Section 36-17-9 is dry and abandoned at 3,337 feet. J. H. Wright has spudded No. 3 SW cor. SE NW Section 24-17-10, and abandoned the location for No. 9 SW cor. NE SE Section 24-17-10. The Texas & Pacific Coal & Oil Co. has completed No. 3 SW cor. NE SE Section 6-16-9. The well is estimated at 75 bbls. after a shot of 10 quarts in sand 2,707-18 feet. Lewis Emery Jr.'s No. 6 NE cor. SW NE Section 21-16-9 had sand 2,972-84 feet and swabbed 47 bbls. the first day. It is now pumping 40 bbls.

In the Hall-Donnelly Pool, R. D. Donnelly, trustee, has a rig on the ground for No. 4 CSL SE SW Section 17-14-10. Gladys-Belle Oil Co. has built the rig for No. 3 NE cor. SW SW Section 17-14-10.

J. B. Grieves' No. 4 CSL SW NE NW Section 13-19-8 is completed for 12 bbls. in sand 2,395-2,418 feet. Lassen Brothers have completed No. 2 NW cor. SW NW Section 13-19-8. Sand was 2,360-2,405 feet and the well is shut in with 10,000,000 feet of gas. Prairie Oil & Gas Co.'s No. 1 SW cor. NW Section 13-17-8 is spudded and shut down. Stover and others are rigging up tools for No. 1 SW cor. NE SE Section 27-17-8. Prairie Oil & Gas Co. is drilling at 569 feet in No. 10, SW cor. SE NW Section 5-16-8.

The Atlantic Oil Producing Co. and Frank Billingslea have completed No. 1 SE cor. NW Section 3-15-7. This well found the sand some time ago 4,030-75 feet and it was shot with 20 quarts. It is completed for 40 bbls. Skelly Oil Co. is spudding No. 7 NW cor. SW SW Section 12-14-8; and No. 8 SW cor. NW SW Section 12-14-8 is also spudded. The Texas Co. is drilling at 290 feet in No. 3 SW cor. NW Section 13-14-8.

Gray Oil Co. is drilling at 1,450 feet in No. 1 NW cor. NE NE Section 3-18-11. H. U. Bartlett's No. 1 SW cor. SW Section 6-18-11 is dry and abandoned at 2,700 feet. Riverland Oil Co. has completed No. 1 NW cor. NE SW Section 28-18-11. Sand was 2,401-08 feet and the well is shut in with 5,000,000 feet of gas. B. E. Kennedy has spudded No. 1 CSL NW NE NW Section 6-18-12. Munn Brothers are drilling at 1,350 feet in No. 1 C N half NE NW Section 6-18-12. S. J. Smith is drilling at 2,405 feet with a hole full of water in No. 1-A NW cor. SE Section 3-17-11. W. J. Cole's No. 1 NE cor. NE Section 5-17-11 is drilling at 1,395 feet. Ireland Brothers are shut down at 2,236 feet with 5,000,000 feet of gas in No. 3 CSL SW SE Section 8-17-11. Shaffer Oil & Refining Co. has spudded No. 2 CNL NW NE Section 17-17-11. T. F. Donovan is rigged up in No. 4 NW cor. SW Section 36-17-11. This is an old well to be drilled deeper.

The Texas Co. has completed No. 1 SE cor. SW SW Section 25-17-12. Sand was 2,330-35 feet and the well is making 40 bbls. after a shot of 20 quarts. Riverland Oil Co.'s No. 1 SW cor. NW NE Section 36-17-12 is dry and abandoned at 2,330 feet.

H. F. Wilcox Co. and others are drilling at 1,675 feet in No. 3 SW cor. NE NW Section 1-16-11. Sheridan Oil Co. and Wheeler have completed No. 1 SW cor. NE Section 30-16-11. Sand was 2,714-48 feet and the well was shut with 20 quarts. It is making 100 bbls. after the shot.

Rogers County

Zoller & Leonard have completed a well in No. 1 SW cor. SE NW Section 8-22-14. The Tucker sand was found 1,273-80 feet and the Burgess sand 1,284-99 feet with a total depth of 1,302 feet. It was shot with 40 quarts and is estimated at 15 bbls. Pitts Oil & Gas Co. has a dry hole in No. 1 CNL NE NE Section 20-22-14. It is dry and abandoned at 1,600 feet.

Tillman County

G. R. Parrell had a dry hole in No. 1 SE cor. SW NW Section 61-4s-15w. The total depth of the hole is 2,603 feet.

The Penn Western Oil Co.'s No. 1 NW cor. SE Section 16-3s-18w, has a failure at 2,692 feet. It is abandoned.

C. A. Hogan and others have a duster in No. 1 NW cor. SE NE Section 1-5s-15w. It is dry and abandoned at 2,014 feet.

Stephens County

Mid-Kansas Oil Co. has a dry hole in No. 5 SW cor. SE Section 18-2s-7w. It is abandoned at 1,839 feet. Magnolia Petroleum Co.'s No. 3 SE cor. NW Section 25-1s-9w is rigging up standard tools to drill deeper. Gant and others are moving in a machine to deepen No. 1 CNL NE NE Section 36-1s-9w. Magnolia Petroleum Co.'s No. 10 NE cor. NW NE Section 20-1s-8w had sand at 2,265-2,337 feet and is estimated at 20 bbls. It is not completed. Fisher Brothers have completed a pumper in No. 5 NE cor. SE NW Section 22-1s-8w. Sand was 2,002-32 feet and the well is doing 10 bbls. Walt Ganel is drilling at 2,238 feet in No. 5 CEL NW NE Section 32-1s-8w an old well drilled deeper. Crump & Beard's No. 5 NW cor. SE Secton 32-1s-8w is drilling at 600 feet. Lorraine Petroleum Co. has abandoned the location for No. 3 CSL NE SE SW Section 32-1s-8w. Brandon and others have

a rotary rig in for No. 2 SW cor. NW Section 35-1s-8w. The Carter Oil Co.'s No. 1 CEL SW NE Section 2-2-5w, an old well deepened 2 feet to a total depth of 1,496 feet, made 120 bbls. on the pump the first day. Crump & Beard have completed No. 3 CNL NE SE NW Section 11-1-5w. Sand was 1,068-74 feet and the well is a 5-bbl. pumper.

Douhitt and others have rigged up a rotary rig for No. 3 SE cor. NW SE Section 23-1-9w. American Pipe Line Co.'s No. 3 CWL SW NW Section 25-1-9w, flowed 130 bbls. from sand 2,300-17 feet. It is completed. Eagle Creek Oil Co. has the rig up for No. 6 SE cor. SW NE Section 26-1-9w. Ka Wye Drilling Co.'s No. 3 CNL NE SE Section 26-1-9w, had sand 2,272-95 feet and is pumping 50 bbls.

The Carter Oil Co.'s No. 1 NE cor. NW Section 5-2s-8w. is running the 5-inch casing at 2,221 feet. This is an old well drilled deeper. Pace, Muse, Jones and others' No. 1 SW cor. NE SW Section 12-2s-8w, is drilling at 126 feet. Dirk Coates is driling at 250 feet in No. 1 NW cor. NW Section 13-2s-8w. Pace and others' No. 1 SE cor. NW NW Section 22-3s-8w is drilling at 100 feet.

Carter County

Humble Oil & Refining Co. has spudded No. 1 NW cor. SW SE Section 1-4s-3. In the Brock Pool, the Amerada Petroleum Corp. is rigged up on No. 19 CSL NW NE SE Section 20-5s-1; and No. 3 NE cor. SW SE Section 28-5s-1 is running the 8-inch casing at 919 feet; No. 10 CSL NW NE NW Section 29-5s-1 is completed. It had a total depth of 1,381 feet and was plugged back to 1,310 feet where perforated casing was run to permit the sand to produce from 970-974 feet and also from 1,298-99 feet. The well is pumping 27 bbls. Amerada Petroleum Corp.'s No. 2 CEL NW SE Section 34-5s-1 had a total depth of 1,095 feet and was plugged back to 1,051-61 feet and is swabbing 14 bbls. The tubing is being run and the well is not completed.

Templeman & Frantz have abandoned the location for No. 2 SW cor. SE SW Section 28-1s-3w. Wirt Franklin's No. 2 NW cor. SW NE Section 22-2s-3w is shut down at 1,446 feet after the rig was pulled in. The Humble Oil Co. has completed No. 4 SE cor. NW NE Section 22-2s-3w where broken sands were found 2,607-43 feet and 2,845-76 feet. The well is flowing 216 bbls. a day. Magnolia Petroleum Co.'s No. 5 NE cor. SE Section 23-2s-3w had oil 1,937-53 feet and swabbed 140 bbls. the first day, and then flowed 108 bbls. the next day. The swab is being fished out. Magnolia's No. 7 NW cor. SW Section 24-2s-3w had sand 1,998-2,033 feet and is estimated at 75 bbls. Coline Oil Co. has completed No. 1 SW cor. NE Section 7-2s-2w. Sand was 1,818-28 feet and the well is pumping 90 bbls.

The Carter Oil Co. has spudded No. 1 NW cor. SW SW Section 8-2s-2w. Healdton Petroleum Co.'s No. 5 NE cor. SE NE Section 31-2s-2w is completed. Sand was 3,107-16 feet and the well is pumping 60 bbls. Jones Brothers have completed a small well in No. 1 SW cor. SW Section 31-4s-1 where the test had a total depth of 3,110 feet and was plugged back to sand 2,618-70 feet and is making 15 bbls. Amerada Petroleum Corp. has spudded No. 1 SW cor. SW Section 2-3s-3w. Atlantic Oil Producing Co.'s No. 2 CSL SW SW NW Section 5-3s-2w has set the surface casing. Coline Oil Co.'s No. 3 NW cor. SE Section 8-3s-2w is drilling at 1,250 feet. Schermerhorn Petroleum Co.'s No. 2 SW cor. NW NE Section 8-3s-2w is rigging up a rotary.

Grady County

Becker & Reid have a rotary rig up for No. 1 C SE NW Section 8-5-6w. J. B. Nichols is shut down at 450 in No. 1 CSL SW NW Section 25-5-8w. Carter Oil Co. is drilling at 895 feet in No. 5 SW cor. NW Section 26-5-8w; and No. 1 C SE NE Section 34-5-8w, had broken sands 2,026-2,500 feet and is making 25,000,000 feet of gas and 25 bbls. oil.

Joe Ray and others' No. 1 SE cor. NE Section 21-3-5w, is completed with 4,500,000 feet of gas from sand 1,328-39 feet. It is showing a little water. The same owners are moving in a machine for No. 1 SE cor. NE SE Section 27-3-5w. Briscoe & Hall have built a rotary rig for No. 1 CNL NE NW NW Section 2-4-8w.

NEW MEXICO FIELDS

(Continued from Page 32)

wells on the Aztec anticline between the Aztec gas well and the Miller gassers.

The Munoz test on the Estancia Valley structure will be spudded in this week. Production in the Torrance County test is expected around 1,500 feet. Drilling will be carried deeper if necessary. A 12 or 15-inch hole will be started.

The deep test to the Pennsylvania on the Rattlesnake structure has been moved 2,000 feet north of the original location. The new location is between two producers.

The Munoz test in Rio Arriba County is below 1,715 feet.

Drilling Report, Eddy County

Bailey & Cragin's No. 1, Randolph permit, drilling below 2,347 feet, after encountering oil showing; George Bobb's No. 3, Thompson permit, drilling at 600 feet; No. 4, drilling; D. C. Cheesman No. 2, Section 34, drilling after spudding in Saturday; No. 1, Massey permit, rigging up; No. 1, Section 35, drilling at 3,150 feet in black, sandy lime; California, Reiff No. 1, drilling below 2,100 feet; Colorado Drilling Co. Irvin No. 1, shut down at 650 feet; Danciger Oil & Refining Co. Section 17, No. 2, producing; No. 3, drilling at 2,140 feet, 2,000 feet oil in hole; No. 2, Section 18, drilling below 2,075 feet; No. 2, Section 17, drilling below 600 feet; Danciger-Kaseman No. 2, Section 4, drilling at 350 feet; Dome Oil Co. No. 2, Section 21, 350-barrel producer; Flynn, Welch & Yates, No. 10, Section 9, producing; No. 23, drilling below 300 feet; No. 24, drilling below 750 feet; No. 25, drilling; No. 26, drilling below 800 feet; No. 27 rigging up, No. 28 drilling; No. 29, drilling at 600 feet; Fletcher Oil Co., drilling below 1,900 feet, oil showing at 1,880 feet; Hogan, Johnson No. 1, drilling below 2,150 feet; Monita No. 1, Cronin Permit, encountered oil showing, drilling below 2,150 feet; Maljamar No. 9, Section 5, drilling at 1,900 feet; No. 10, drilling below 1,650 feet; No. 11, drilling at 1,200 feet; Mesa Oil Co. No. 1, Section 4, drilling at 2,280 feet, increased gas showing at 2,200 feet; Ohio Oil Co., Tracy permit, Section 34, drilling at 4,260 feet; McCullough permit, No. 1 installing Clark drilling engine; Ohio Oil-Toomie Allen No. 2, drilling at 2,170 feet, 1,100 feet oil in hole; No. 4, drilling at 2,020 feet; Ohio-Gilliland No. 2, drilling below 2,110 feet, 600 feet oil in hole; Pueblo Oil Co., Section 4, drilling below 2,075 feet; Pioneer Oil Co., Section 36, drilling; Quillin, Drill Bros., Section 11, report; A. H. Ramage No. 1, drilling below 2,395 feet; Snowden-McSweeney No. 1, McNutt permit, drilling below 3,640 feet; Snowden-McSweeney No. 2, Section 33, on production; No. 5 cleaning out after shot; No. 6 drilling at 1,975 feet, top pay at 1,845-50 feet; Stephens and others, Section 19, set 10-inch casing below 300 feet; Smith & Dill, Section 20, no report; Thompson & Workman, Section 5, shot; Texas Production Co. Levers No. 2, on production; Williams Petroleum Co. No. 2, Section 17, drilling below 700 feet; V. K. F. Oil Co. No. 4, Section 17, rigging up, No. 5, rigging up.

New Locations

Danciger interests have made five new locations the past week, all in Section 4-18-28. Material is being moved to two of the locations.

Chaves County

Arkansas Gas & Fuel Co. No. 1, Manning Dome, Section 14, straightening out crooked hole at 1,750 feet; Carl Dresser No. 1, Section 24, no report; Standard of California No. 1, Section 24, shut down below 3,300 feet.

Lea County

Covert and others, Section 15, carrying 15-inch casing through quick sand. New Mexico Producers No. 1, Section 11, resumed drilling with standard rig; Wyatt No. 1, Section 19, drilling; Tilton, Croft, No. 1, Section 33, drilling below 800 feet; Holmes No. 1, Section 18, shut down at 610 feet; Ross No. 1, Section 27, drilling below 800 feet; Ward No. 1, Section 33, drilling.

San Juan County

Continental No. 1, Table Mesa Dome, setting casing; Milwaukee No. 1, Section 30, setting casing at 600 feet; Rainbow No. 1, Section 24, shut down at 1,875 feet; National Petroleum No. 1, drilling; Lexi No. 1, setting casing; Coal Creek Oil Co. contract for drilling of six tests; Oklahoma No. 1, Section 14, shut down at 920 feet, moving on standard rig; Cross, Morelock Gnald, struck showing of oil and gas at 200 feet; West Coast, Section 16, drilling at 800 feet; Hunting Park No. 1, Section 29, below 1,200 feet.

McKinley County

Union United No. 1, fishing; Col. Pierce No. 1, Section 13, recovered lost tools, drilling resumed; California Syndicate, Section 1, drilling; Melsted No. 1, Section 26, no report.

Rio Arriba County

Munoz-Continental No. 1, Section 25, drilling below 1,700 feet; Alburqueque No. 1, Chromo structure, no report.

San Miguel County

Marland No. 1, Section 3, drilling at 2,700 feet; New Mexico No. 1, Section 33, pulling casing to straight-ream for 8-inch; New Mexico No. 2, drilling below 1,220 feet; Patterson & Stuppi No. 1, moving to location, rigging up.

Mora County

Arkansas Fuel Co. No. 1, Section 11, gas mudded off, resumed drilling below 1,820 feet.

Colfax County

Union Oil Co., Section 5, cemented at 3,450 feet.

De Baca County

McAdoo No. 1, Section 16, drilling at 1,600 feet; Eddleman-Woods No. 1, drilling; Hinkle No. 1, drilling, showing at 450 feet; Hall & Hall, Section 23, rigging up; Spaulding Dome No. 1, setting casing at 3,710 feet.

Torrance County

Munoz No. 1, Section 5, rigging up; McLean No. 1, Section 8, drilling at 300 feet.

Sandoval County

Jemez No. 1, Township 16, Range 1, drilling below 550 feet.

Catron County

Red Feather No. 1, Section 30, drilling at 700 feet.

Guadalupe County

Transport Oil Co., Section 10, drilling.

Quay County

Olean Petroleum Co. No. 1, Section 9, drilling below 450 feet.

Roosevelt County

Capital Oil Co., drilling below 700 feet.

Curry County

J. S. Moore, Gurley No. 1, no report.

Luna County

Angelus No. 4, Section 26, drilling.

TO ADJUST INCOME TAXES

OKLAHOMA CITY, Okla., Sept 14.—A district office of the United States Internal Revenue Department is to be established in Oklahoma City about October 1 to make a specialty of adjustments of income taxes arising from oil production and other oil enterprises, according to G. C. Holt, internal revenue agent. The office will be on the second floor of the Magnolia Petroleum Co. Building. It will serve the States of Oklahoma and Arkansas. While the agents will handle oil deficiency credits principally, field agents will report on investigations covering other large revenue assessments. Deficiency credits are those amounting to 50 per cent of the value of oil produced, and were provided for specially for oil producers.

L. W. RIDDLE DIES

CHATHAM, Ont., Sept. 12.—L. W. Riddle, manager of the Saskatoon, Sask., branch of the Prairie Oil Co., died recently following an operation at Rochester, Minn. His wife survives him.

LOS ANGELES MARKET IS EXPECTING CUTS

LOS ANGELES, Cal., Sept. 12.—It was generally expected that when the Standard Oil Co. (California) did change prices the reduction would be throughout the Pacific Coast and would include crude as well as gasoline. This, however, was not the case, the company announcing that the 2-cent cut in gasoline in the Los Angeles territory only was made necessary in order to meet competition where and as it was found.

The price reduction makes it possible for motorists to buy gasoline at service stations in Los Angeles 3½ cents cheaper than in San Francisco. Over a year ago the service station price at Los Angeles was made 1 cent cheaper than at San Franciso. In the fall of 1924, to meet the price of "bootleg" gasoline, then 6 gallons for $1, an additional half cent reduction was made at Los Angeles, making the price 16½ cents, and 1½ cents less than the price at San Francisco. The reduction during the past week further increased this difference in the price of gasoline in the two largest cities in California to 3½ cents per gallon, a condition which cannot last for long.

To date the Standard Oil Co. (California) has given no indication whatever that it will cut the base price for crude in the field. If crude is not cut in the near future, the smaller refineries around Los Angeles are going to find it hard to continue to operate. Even under the old price schedule many smaller refiners were just holding their own, so the cut in gasoline without a corresponding cut in crude will be a very heavy blow.

The independent service station operator is also hit hard. For several months the differential in the tank wagon and service station price of gasoline among the big companies has been 3 cents per gallon. The smaller companies have been offering a differential of from 4 cents to 5 cents. With the price reduction, practically no company is giving a margin to re-sellers of 5 cents, and only a few are still offering 4 cents. This means that the independent dealer must absorb as much as 1 cent per gallon reduction in his margin of profiit, due to the drop.

The marketers of "bootleg" gasoline have also been forced to cut their prices. Hitherto, the prevailing price has been 6 gallons for $1, which is just over 16½ cents per gallon. The most popular prices for "bootleg" gasoline this past week have been 6 gallons for 90 cents, 6 gallons for 93 cents, and some is being offered as low as 7 gallons for $1. Most of the marketers of this gasoline admit these prices are rock bottom at the present price of crude.

No one knows just what changes will occur in the near future. A gasoline cut throughout the Pacific Coast, with an accompanying cut in crude, is expected, but it is hard to say just when this reduction will come. The demand for gasoline for local use constinues very strong and a price change is hardly warranted at this time. Undoubtedly the reduction around Los Angeles was due to the extremely keen competition which has existed here ever since the flush production due to the Signal Hill and Santa Fe Springs Fields. However, marketers are at present anxiously awaiting the next change, for the general feeling is that the present price structure cannot continue in effect for very long.

MOVES TO ABILENE

ABILENE, Tex., Sept. 12.—Removal of the main offices of the Southern Petroleum Exploration, Inc., from Wichita Falls to Abilene was announced by J. K. Wallingford, manager. The company is interested in Wilbarger and Callahan Counties, Texas, and in Artesia, New Mexico. It is a subsidary of the Petroleum Exploration, Inc., of West Virginia.

Prairie Passes September Dividend

Condition of Oil Business Requires Reinvestment of Earnings
Chairman Fitzpatrick Says in a Statement to the Stockholders

By N. O. Fanning
Room 543, No. 30 Church St., New York

NEW YORK, Sept. 14.—The board of directors of the Prairie Oil & Gas Co. today voted to pass the September dividend on the stock of the company, and in connection with the announcement of such action W. S. Fitzpatrick, chairman of the board of directors, gave out the following statement:

"It has never been the policy of the Prairie Oil & Gas Co. to pay dividends when its funds were required for reinvestment in the conduct and extension of its business. The Prairie Oil & Gas Co. has been made what it is by the investment of its earnings in its business from time to time and this suspension of the payment of dividends is in keeping with the company's past policy.

"The Prairie's earnings for the first seven months of this year have exceeded its earnings in the two preceding years for a like period, but the present disturbed and unsettled state of the oil business in all its branches warrants the anticipation of greatly reduced earnings over the remaining months of this year.

"Since April 1, 1925, the company has continuously and materially increased its stocks of crude oil and has by purchase and development increased its own production more than 6,000 bbls. per day, and this has been done almost wholly through the reinvestment of earnings.

"The cash position of the company today is comfortable and, through the action of the board of directors in passing dividends for the present will, it is hoped, be made securely so for the remainder of the year, in the face of prospects for more rapid increase in crude oil stocks.

"Thousands of producers of crude oil in the Mid-Continent Field are dependent upon the Prairie company for a market; their oil must be taken, they must be paid in cash, and the company's treasury must be prepared to meet these obligations and, therefore, suspension of dividends is but an assurance to that end."

Kentucky at New High

Oil securities were inactive but higher during the past week Standard of Kentucky was strong, reaching a new high for the year. The Pan-American Petroleum issues advanced on the declaration of the regular quarterly dividend.

General Petroleum

One of the most important items of new oil financing this year was that of the General Petroleum Corp., which has sold through Blyth, Witter & Co., Guaranty Co. of New York, Lee, Higginson & Co., Continental & Commercial Trust Savings Bank, White, Weld & Co. and E. H. Rollins & Sons, a new issue of $18,000,000 first mortgage sinking fund 5 per cent gold bonds maturing August 15, 1940.

Capitalization of the General Petroleum Corp., whose common stock was recently listed on the New York Stock Exchange, as of June 30, 1925, after giving effect to the present financing, is as follows:

Earnings

	Authorized	Outstanding
First mortgage s. f. 5 per cent bonds..	$35,000,000	$18,000,000
5-year 6 per cent notes due April 15, 1928	.....	*9,287,000
Preferred stock.....	3,212,200	3,212,200
Common stock	46,787,800	28,536,050

*To be secured ratably with present issues.

The consolidated earnings of the General Petroleum Corp. for the two fiscal years ended June 30, 1925, were as follows:

	1925	1924
Gross income after operation expenses	$15,778,173	$17,696,352
Drilling expense, depreciation, etc. ...	6,743,094	7,018,061
*Balance	$ 9,035,079	$10,678,291
Depletion	558,838	380,515

*Before interest, depletion and Federal income taxes.

Purpose of Issue

The purpose of the $18,000,000 financing is partly to provide funds for the retirement of $7,837,000 10-year 7 per cent first mortgage notes, $138,400 6 per cent convertible notes and the bank loans of the corporation, and also to provide for a program of development in the corporation's producing, manufacturing and marketing divisions and will provide additional working capital to meet the needs of its steadily expanding business.

The General Petroleum Corp. is engaged in producing, transporting and refining crude oil and in the wholesale marketing of fuel oil and petroleum products. The present land holdings located in the principal oil fields of California, total in excess of 43,000 acres, including large blocks of proven but undeveloped territory. The present daily production from 392 wells is over 31,000 bbls., and, in addition, 311 wells with a potential daily production of over 5,000 bbls. are shut in and held in reserve. Purchases of crude from other products at present average 40,000 bbls. per day.

The corporation's refinery near Los Angeles and topping plants at Olinda and Lebee, Calif., have a daily capacity of over 60,000 bbls. Refinery facilities include a complete lubricating oil and grease plant. The pipe line system owned by its subsidiary, the General Pipe Line Co. of California, consisting of 423 miles of main line pipe and over 300 miles of gathering lines, connects the corporation's principal producing properties with its main storage reservoirs, refinery and rail and water loading terminals. Marine equipment includes 10 tank steamers with an aggregate capacity of over 750,000 bbls. The corporation owns eight of these vessels and operates two under long time charters.

NEW YORK STOCK EXCHANGE—LIST OF ACTIVE STOCKS

Stocks—	$Dividends Par	Rate	Closing Quot. Sept. 14	Sept. 5	1925 High	1925 Low	1924 High	1924 Low	1923 High	1923 Low
American Republics	..	..	*67	*55	76	48	48	25	..	..
Associated Oil	25	8	36⅜	33¾	40¼	32	34⅝	27⅝	29¼	29½
Atlantic Ref. com.	100	..	102	101	117½	95¼	140½	78½	100	98¾
Barnsdall "A"	25	..	21½	19½	30	18⅝	22½	14	37	9⅝
California Pet. com.	25	7	27⅝	26¾	32⅞	23⅞	29	19⅞	28½	17½
General American Tank..	..	†3	56⅞	*47	58½	45	53	35½	71⅝	40
General Petroleum	25	8	48½	45½	59	42	45	38⅝	..	..
Houston Oil	100	..	69	64	85	59	82½	61	78	40¾
Independent Oil & Gas ..	..	†1	25⅝	24¾	41⅝	13½	16¼	5⅜	11¼	3⅜
Indian Refining	10	..	7½	*7¼	10⅜	5½	7	8⅝	8½	4
Louisiana Oil	10	..	15¼	14¼	23⅜	13⅜	..	..	..	..
Maracaibo	..	..	23½	*20⅜	35½	21	37½	25⅝	28½	16
Marland	..	†3	44½	42¼	46⅞	32⅝	42	29	59⅜	18½
Mexican Seaboard	..	..	13⅜	*12½	22½	11⅝	25⅝	14¼	19⅜	5⅝
Mid-Continent Pet.	..	..	30	28	36	26⅝	40⅝	22⅝	62¼	23⅝
National Supply	50	6	57	*56½	71	56⅝	72½	54	68	54
Pacific Oil	50	†3	54⅛	53⅜	65¼	51⅝	58¼	45	52⅛	31½
Pan-American com.	20	12	67	61⅝	83⅞	61	65	44¼	93½	53
Phillips Petroleum	..	†2	39⅜	38½	47⅛	36½	42¾	28½	69⅝	19⅜
Producers & Refiners	50	..	*15	14⅜	32⅝	13½	43½	29⅝	58½	17½
Pure Oil com.	..	6	27¼	26	33⅜	25¼	30¼	20	32	16¼
Royal Dutch N. Y. sh.	13.40	4.42½	50½	*48⅝	57⅝	48¼	59½	40⅝	55½	40½
Shell Transport	10	3.30	40⅝	*40	45⅝	39⅝	42	33	41¼	29½
Shell Union com.	..	†1.40	22⅝	22½	28⅜	25⅝	22½	15⅝	19¼	12⅜
Simms Petroleum	10	..	20½	18⅝	26⅝	19½	24	10⅜	16⅜	6½
Sinclair Consolidated com.	..	..	19⅛	19	24⅞	17	27½	15	39⅝	16
Skelly Oil	25	..	26⅝	26¼	30½	21¾	29	17⅛	38	12¼
Standard of California	25	8	54⅛	53⅝	67¼	51⅛	68⅛	55⅛	64½	47½
Standard of N. J. com.	25	4	40⅝	39⅝	47½	38⅝	42⅜	33	44¼	30⅝
Superior Oil	6	..	3¼	*3¼	6⅛	2⅞	8⅛	2⅝	6⅝	2
The Texas Co.	25	12	49⅛	47¼	54⅝	42⅜	45⅝	37⅜	52⅞	34⅝
Texas Pacific Coal & Oil..	10	..	12¼	11½	23⅜	11	15¼	8¼	24⅜	5⅛
Tide Water Oil (new).....	..	4	33½	*31⅝	‡152	122	151	116¼	144	94
Transcontinental	..	..	3⅝	4	5⅞	3⅞	6¼	3⅝	14½	1¼
Union Oil of California..	25	7 2	34¼	33⅝	43⅝	33⅛	39	35½	..	..
Union Tank com.	100	5	*120¼	*118½	134	118½	132⅞	94	114	106
White Eagle Oil & Ref...	..	2¼	26¼	25⅞	31⅝	25⅝	29⅝	23⅛	30⅜	29½
Standard Oil Stocks										
Anglo-American Oil	£1	25	*22⅜	*22¼	26⅝	18	18⅜	14⅝	19⅜	13½
Borne Scrymser	100	12	235	*220	240	213	264	150	153	110
Buckeye Pipe Line	50	14	57	56⅛	72	58½	85½	51	94	57½
Chesebrough Mfg. Co.	25	14	63⅛	*62½	70	48¼	52½	29¼	340	205
Crescent Pipe Line	25	..	*16	*16	17	10	20	11¼	25	15
Cumberland Pipe Line ...	100	12	*144	*144	156	128	148	108	117	80
Eureka Pipe Line	100	8	72	*70	96	70	105	74	117¼	87
Galena Signal com.	100	..	38½	40	68½	40	69¾	52⅜	78	55
Humble Oil & Refining..	25	4.8	60⅝	57½	72½	42½	43⅝	36	41	28¼
Illinois Pipe Line	100	12	138½	134⅜	154½	127	161	123	171	115
Imperial Oil (Ltd.)	..	†3	32	31¼	32½	27¼	119	99	123	92
Indiana Pipe Line	50	3	67	*67	84	66⅜	110	66	103	81
International Pet. Co....	10	x50	26¼	25⅝	28⅜	22⅛	24⅝	16⅞	24⅜	13⅛
Magnolia Pet. Co.	100	4.5	*137	*136	159	130½	162	125	166	123
National Transit	12.50	16	*20	*20	25½	19½	25⅞	20⅝	29	19¼
New York Transit	100	3	56¼	*56	79	50	97	54½	138	70
Northern Pipe Line	100	6	*78	*80	88	78	107½	72	111	96
Ohio Oil Co.	25	8	62⅜	*61	75¼	60	79½	53	85⅝	48⅜
Penn-Mex. Fuel	26	..	*21	*21	44	23	35⅝	27	45	10½
Prairie Oil & Gas	25	†2	50	4*0½	66½	48⅝	269	193	272	152
Prairie Pipe Line	100	8	*125	121½	127½	106	111	100	117	93
Solar Refining Co.	100	15	218	*205	259	200	240	170	212	161
South Penn Oil	100	..	164	164	197	138	176	117	196	100
Southwest Pa. Pipe Line ..	100	6	60	*60	84	60	89	68	89	66
Southern Pipe Line	100	4	77	*76	103	75½	100	80½	116	87
Standard of Indiana	25	10	63⅛	61⅝	70	59½	69⅝	54¼	69⅞	48½
Standard of Kansas	25	..	31½	31½	46	30¼	50½	32½	56¼	26½
Standard of Kentucky ..	25	16	131¼	125	131½	114⅜	121⅞	101	109½	76
Standard of Nebraska ...	100	20	239	*233	270	231	262	198	280	186
Standard of New York...	25	5.6	41¼	40⅜	48⅝	40	48	37⅜	49⅝	35½
Standard of Ohio, com....	100	10	356	*350	369	338	337½	277	320	270
Swan & Finch, com.	25	..	16½	*14	27	14½	28	20	..	..
Vacuum Oil	25	†3.75	87⅝	86	96¼	80½	83½	50½	55½	40
Washington Oil	10	..	*30	*30	30½	30	29	25	28	20¼
Miscellaneous Stocks										
Continental	10	10	25	26¼	31⅛	21⅞	..	..	..	..
Gulf Oil Corp. of Pa.	25	6	74½	74⅝	79	63½	67⅝	56	68¼	45⅝

*Bid, no sales. †In dollars. §The figures in this column are kept up to date as far as possible, but are not guaranteed. xCents per share. †Old stocks.

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange was as follows:

Sept. 14	53.02	Aug. 10	52.78	July 6	55.96
Sept. 5	51.18	Aug. 3	54.51	June 29	56.36
Aug. 31	51.16	July 27	56.21	June 22	57.29
Aug. 24	52.06	July 20	57.13	June 15	58 61
Aug. 17	51.25	July 13	55.98	June 8	56.97

The consolidated income account for the six months ended June 30, 1925, compares as follows:

	1925	1924
Total income*	$5,370,474	$5,855,195
Minority shareholders' property	46,312	112,393
Total income (Continental Oil) .....†$5,324,162		$5,742,802
Depreciation and depletion reserve.....	.....	2,666,706
Net earnings	.....	‡$3,076,096

*After expenses. †Before depreciation, depletion and Federal taxes. ‡Before Federal taxes.

The consolidated general balance sheet of the Continental Oil Co. and affiliated companies as of June 30, 1925, compares as follows:

Assets

	1925	1924
Cash and call loans..	$6,315,871	$3,305,476
Govt. bonds, etc.....	2,086,958	2,186,458
Notes receivable	363,240	477,036
Accounts receivable ..	8,873,303	5,974,902
Materials & supplies ..	8,555,715	9,094,476
Investments	2,881,668	2,671,101
Other assets	954,236	345,358
*Property, wells, refinery equipment, etc.	46,814,816	46,837,933
Deferred assets	151,798	211,755
Total	$76,997,605	$71,103,495

Liabilities

Capital stock .....§	$34,914,280	$30,208,590
Notes and accounts payable	6,058,509	6,010,564
Funded debt	229,000	502,180
Reserve, tax, depreciation, etc.	725,177	1,028,055
Minority int. affi. cos.	975,070	3,000,185
Surplus	£34,095,569	30,353,921
Total	$76,997,605	$71,103,495

*After depletion, depreciation, etc. §Before depletion and depreciation for six months ended June 30, 1925.

Galena Signal Oil

The Galena Signal Oil Co. omitted the quarterly dividend of $1 per share on the common due at this time. Directors stated that although earnings to date in the current year have been very satisfactory they felt the present cash resources of the company should be conserved. Regular quarterly dividends of $2 on the preferred and new preferred was declared, payable September 30 to stockholders of record September 10.

Humble Oil & Refining

The Humble Oil & Refining Co. has declared the regular quarterly dividend of 30 cents per share, payable October 1 to stockholders of record September 16.

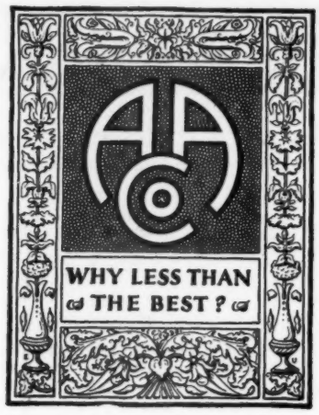
Marland Oil

The Marland Oil Co. has declared a dividend of 75 cents per share, the same as paid three months ago. It is payable September 30 to stockholders of record September 20.

Mountain Producers

The Mountain Producers Corp. has declared an extra dividend of 30 cents per share in addition to the regular quarterly dividend of 20 cents, payable October 1 to stockholders of record September 15.

"First of all we must know what we need to know"



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REFINING AND MARKETING

SEPARATE DISTRICT ASKED IN RATE CASE

The principal development of the past week of interest to the petroleum industry in the I. C. C. hearing now being held in Chicago relative to the petition of western carriers for a 5 per cent increase in freight rates centered around the action of the Railroad Commissions of Texas and Arkansas and the Corporation Commission of Oklahoma asking that a separate district to be known as the Southwestern district, be created. This new district, which is now part of the Western district, would be composed of the States just mentioned and that part of Missouri lying south of the Missouri River, certain portions of Kansas, and that portion of Louisiana lying west of the Mississippi River.

This segregation of the southwestern States is desired for the purpose of more equitable rate making. The petition is considered an opening wedge on the part of the southwestern railroad interests and shippers to have the matter of rate increases for that area decided upon conditions existing in that territory, and not the Western district as a whole.

The first few days of the hearing have been given over to the testimony of the carriers who desire the increase in rates. Representatives of railroad security holders have also stressed the importance of increasing rates so the carriers' earnings can more nearly approximate the 5.75 per cent assured the railroads under the transportation act.

Considerable opposition has developed from many of the carriers to the so-called Potter plan. This plan, which was introduced by Mark W. Potter, one of the receivers of the Chicago, Milwaukee & St. Paul Railroad, proposed that the earnings of the carriers be pooled and divided so as to aid the weaker lines.

C. W. Spans, vice president of the C. B. & Q., in his testimony, outlined the proposals of the carriers as follows: All rates to be advanced horizontally 5 per cent except as follows: Rates into the Missouri River markets; also St. Paul, Minneapolis and Duluth to be advanced 1 cent per 100 pounds.

Rates from these markets to Chicago, Peoria, St. Louis and points taking the same rates; also to Mississippi Valley, southwest territory and to Gulf ports and Rio Grande crossings for export, 1 cent per 100 pounds.

Rates from west of Missouri River including Oklahoma to southwest and Mississippi Valley territories; also to Gulf ports and Rio Grande crossings, when for export, 2 cents per 100 pounds.

Through rates made on combinations of local and proportional rates, 2 cents per 100 pounds.

All other rates, including intrastate rates 1 cent per 100 pounds.

Rates between Pacific Coast and southwestern and western trunk line territories 3 cents per 100 pounds.

Coal and coke 15 cents per ton.

Clays and gravel and crushed stone, 7½ cents a ton.

Lime and plaster, brick and stone, including artificial stone and cement, 20 cents per ton.

Lumber 2 cents per 100 pounds.

Joint through rates between western district and eastern and southeastern territories to be advanced the proportion the western lines' rates are advanced.

No change in present rates for accessorial services, such as switching, reconsigning, etc.

Exceptions to transcontinental rates to be announced later.

Regularly established rate relationships to be maintained.

TEXAS OIL MEN'S SESSION

HOUSTON, Texas, Sept. 14.—Discussions of problems involved in freight rates and gasoline rebate contracts will feature the convention of the Texas Independent Oil Men's association to be held at Houston October 23. Because of the size of the State and difficulties of oil men attending special efforts are being made to get a large attendance at the sessions, according to R. N. Mullin, president of the association.

ASSOCIATION MEETINGS

International Petroleum Exposition, Tulsa, Okla., October 1 to 10, inclusive.

Ohio Petroleum Marketers Association, Youngstown, Ohio, September 24, 25.

Petroleum division, National Safety Council, Cleveland, Ohio, September 29 to October 1, inclusive.

Carolina Automotive Service Association, at Greensboro, N. C., October 20, 21.

American Oil Men's Association, Congress Hotel, Chicago, October 20, 21, 22.

Texas Independent Oil Men's Association, Houston, Tex., October 23.

Nebraska Independent Oil Men's Association, Omaha, Neb., October 29-30.

National Petroleum Marketers Association, Louisville, Ky., November 17, 18, 19.

INTERSTATE GASOLINE CO.

WICHITA FALLS, Tex., Sept. 14.—Plans to refinance, reorganize or sell the Interstate Gasoline Co. of Wichita Falls, still are being considered, according to a report of the receivers. The report, which covers the period from September 13, 1924, to June 30, 1925, showed that the Burkburnett natural gasoline plant made a net profit of $8,700 during May and June, operating on a 24-hour basis.

CONTRACT TO TEXAS CO.

NEW YORK, N. Y., Sept. 14.—The Texas Co. has been awarded a contract to furnish the Interborough Rapid Transit Co. with lubricating oils for all subway and elevated cars for one year. The contract is claimed to be the largest of its kind in the world. Lubricants will be furnished for 4,595 cars which cover 201,000,000 miles annually. The Texas Co. now furnishes lubricants for 97½ per cent of all subway, elevated and surface cars in Greater New York.

CHEMISTS TO DISCUSS OIL

NEW YORK, N. Y., Sept. 14.—Discussions dealing with various phases of the oil industry will be featured at the chemical exposition of the American Chemical Society at Grand Central Palace September 28 to October 3. Among the addresses at the meeting will be: "Petroleum Aspect of Oil Conservation," by K. C. McKenzie, consulting chemist of The Texas Co.; 'Motor Design and Fuel Conservation," by C. F. Kettering, and "Fermentation Industries and Motor Fuel," by A. C. Fieldner.

GLENN B. MORGAN DIES

Glenn B. Morgan, former State geologist of Wyoming, well known throughout the Rocky Mountain region by the oil fraternity, died at his boyhood home in Rolla, Mo., recently. Mr Morgan was a graduate of the Missouri School of Mines and went to Wyoming in the beginning of the great boom to make some geological surveys. Governor Robret Cary appointed him State geologist.

LESS GASOLINE SOLD IN OKLAHOMA IN JULY

OKLAHOMA CITY, Sept. 14.—Gasoline inspection figures in Oklahoma were nearly 500,000 gallons less at the end of July than at the end of June, records of the conservation bureau of the Corporation Commission reveal. This is due probably to heavier purchasing of stocks in June than in July. The figures for July were 17,161,448 gallons and for June 17,567,281 gallons. Inspection for July, 1924, showed 15,390,614 gallons. More than 1,500,000 gallons each were inspected in Oklahoma and Tulsa Counties in July. The third county was Okmulgee with 531,587; the fourth, Garfield, with 508,563, and the fifth, Muskogee, with 480,478.

A notable decrease of kerosene stocks was shown in July, the figures being 2,927,917 gallons, compared with 3,307,826 gallons. In July, 1924, inspections totaled 3,130,812 gallons.

MIXING IN TRANSIT

AUSTIN, Texas, Sept. 12.—The railroad commission set for hearing October 13, application of the North Texas Petroleum Traffic Bureau of Fort Worth,, for a revision of regulations so as to allow mixing or blending in transit of naphtha and natural gasoline in tank cars at refining points in the State.

BUNKER OIL DEMAND

WASHINGTON, D. C., Sept. 14.—Foreign trade vessels loaded 21,574,732 bbls. of bunker oil in United States ports during the first six months of this year. This was an increase of 1,120,109 bbls. over the same period of 1924, although a decrease of 1,298,420 bbls. from the last six months of 1924. The oil was delivered from 22 customs districts, New York having the largest single record and New Orleans the second.

ATLANTIC NAVAL NEEDS

WASHINGTON, D. C., Sept. 14.—Approximately 843,350 gallons of U. S. Motor gasoline and 350,000 gallons of domestic aviation gasoline will be required by the navy department to cover its Atlantic and Gulf Coast consumption, according to bids which are being asked by the Government.

SKELLY CO. BUYS STATIONS

As another step in enlarging its tank and service station facilities in Kansas and Missouri, Skelly Oil Co. has purchased the bulk station facilities of Kack & Moore at Sedalia, Mo.

WILHOIT CO. EXPANDS

JOPLIN, Mo., Sept. 14.—Wilhoit Refining Co., of Springfield, Mo., is planning to spend $175,000 in enlarging and improving its refinery at Joplin, Mo. The expansion program will include a pipe line and new power plant and other additions.

OIL DEPOT FOR MELBOURNE

NEW YORK, N. Y., Sept. 14.—Plans for the erection of an extensive plant for the distribution of gasoline, oils and kerosene at Melbourne, Australia, have been announced by the Vacuum Oil Co. The plant will cost several million dollars and will occupy a 40-acre site.

H. G. JAMES TO SPEAK

OMAHA, Neb., Sept. 14.—H. G. James, secretary of the American Oil Men's Association, will be one of the chief speakers at the convention of the Nebraska Independent Oil Men's Association in Omaha October 29 and 30.

RESEARCH FELLOWSHIP IN REFINING COURSE

Last year the Marland Refining Co. established a research fellowship at the University of Oklahoma having to do with investigations seeking for new knowledge concerning the refining of petroleum and petroleum products. That fellowship expired with the close of the spring semester but the Marland company has offered to renew the fellowship for the coming year and the offer has been accepted by the University, according to an announcement made by F. W. Padgett, professor of petroleum refinery engineering. The fellowship fund amounts to $500 and the period of the fellowship extends through the college year of nine months.

The fellowship will be given to one of the advanced students in petroleum refining who has shown special ability. Fellowships of this type enable students having research ability to pursue advanced work and also as a result greater knowledge concerning the natural resources of the state is secured.

PACIFIC NAVAL CONTRACTS

LOS ANGELES, Cal., Sept. 14.—Contracts have been awarded the Standard Oil Co. of California to supply United States Shipping Board vessels on this coast with fuel oil at $1 a barrel. This is 20 cents a barrel lower than the present market quotations of $1.20 to $1.25. Fuel oil only recently was reduced 30 cents a barrel.

REBUILD KANSAS CITY PLANT

KANSAS CITY, Mo., Sept. 14.—Plans to rebuild the units of the Pennsylvania Petroleum Co.'s plant in North Kansas City which were destroyed by fire are being made by officials of the company. The plant suffered a $125,000 loss when an office building, warehouse and laboratory were burned.

ARKOMA PETROLEUM CO. TO ENTER BUSINESS

R. P. Humes, manager of wholesale, and L. H. Deatheridge, division sales manager, of the Transcontinental Oil Co., have resigned to enter business for themselves, operating as the Arkoma Petroleum Co. and the Gibson Oil Co. They will have offices at 708 Mid-Continent Building, Tulsa.

Mr. Humes will leave the Transcontinental Wednesday, while Mr. Deatheridge will not sever his connections for another week. Operating as the Arkoma Petroleum Co., they will represent a large number of jobbers in purchasing refined products, specializing in lubricating oils.

Mr. Humes has been connected with the Transcontinental for nine years, and Mr. Deatheridge five years. Definite arrangements have not been completed for their successors.

P. R. R. TESTS GASOLINE CARS

In furtherance of its experimentation with gasoline cars, the Pennsylvania railroad has operated a car between Camden and Mount Holly, N. J., making a total of 11 gasoline cars in operation on the system. Permanency and extent of their use will depend upon the results of tests being made.

CASPER GASOLINE SHIPMENT

CASPER, Wyo., Sept. 14.—More than 5,400,000 gallons of gasoline was shipped by the Standard Oil Co. of Indiana to Baton Rouge, La., for export from its Casper plants during August. This is the third year the plants have been called upon a fill a 100,000,000-gallon gasoline order.

Brief Items for Plant Operators

OKLAHOMA CRUDE 57 PER CENT GASOLINE

One of the largest high gravity wells ever completed in Oklahoma, with an initial production of 4,000 bbls. of crude daily, has been attracting the attention of refiners during the past week. The well, located in the NW SE NW NW Section 30-12-12, about 12 miles northwest of Tulsa, according to a test made by the Tulsa Laboratories, Inc., has a gravity of 48.3 degrees Baume, from which a recovery of 57 per cent gasoline, gravity 59.7 degrees Baume was obtained in the laboratory test. The well is still flowing 2,000 bbls. daily. It is producing from the Wilcox sand at depth of 2,079 feet.

The crude is being purchased by the Pierce Petroleum Corp. for its Sand Springs, Okla., refinery. The crude is purchased under contract based on crude of 42 Baume and above, with a premium of 25 cents.

Following are the results obtained in the test of the Tulsa Laboratories, Inc.: Gravity A. P. I. 48.3 Baume. U. S. Bureau of Mines, Hempel distillation.

Per Cent Off	Temperature Degrees F.
7.66	212
10.00	221
26.66	284
52.00	374
57.00	392
Cut	
75.66	500
78.66	520
Cut	
21.33 Bottoms.	

100.00 per cent.

Recapitulation

57.00 per cent gasoline, gravity 59.7 Be.
21.66 per cent kerosene, gravity 42.9 Be.
21.33 per cent fuel oil, gravity 28.5 Be.

100.00 per cent.

Distillation of Gasoline Cut

Gravity 59.7 Be. I. B. P. 136 degrees F. E. P. 414 degrees F.

Per Cent Off	Temperature Degrees F.
10	218
20	236
30	254
40	268
50	284
60	300
70	316
80	336
90	366
98	414
1 per cent residue.	
1 per cent loss.	

100 per cent.

SPECIFICATIONS CODE ON NATURAL GASOLINE

The committee of the Association of Natural Gasoline Manufacturers recently appointed to consider plans and methods for testing natural gasoline is now at work studying the proposed code of the Natural Gasoline Association of America for standardized specifications and a uniform method of testing.

A general meeting of the committee will be called in the near future, when recommendations for adoption of the code as it stands, or with changes, will be compiled and placed before the entire association for indorsement. When such a code is worked out definitely by the various gasoline associations, the United States Bureau of Standards will be asked to adopt it as standard.

The committee of the Association of Natural Gasoline Manufacturers working on the code is composed of: A. J. Slosser, Barnsdall Oil Corp., Tulsa, chairman; O. S. Ambrose, Tidal Refining Co.; H. W. Harts, Amerada Petroleum Corp.; Ray Short, Prairie Oil & Gas Co.; E. C. LeFevre, Empire Gasoline Co.; George Bunn, Phillips Petroleum Co.; J. H. Boyle, Chestnut & Smith Corp.; J. J. Thomas, Skelly Oil Co.; Elmer Schmidt, Lone Star Gas Co., and P. M. Childer, Marland Oil Co. In addition, W. A. Melton of the J. A. Hull Co., a non-member, who had a part in the compiling of the original proposed code, is serving on the committee.

AMONG THE TECHNICAL MEN

R. E. Haylett, manager of the research and development department of the Union Oil Co. of California, first became connected with the company in 1916. In that year he was employed as chemist at the company's Oleum, Cal. refinery. A year later he was made chief chemist at the same refinery. He continued in that position until 1920 when he was transferred to the Los Angeles offices of the company's refineries.

R. E. Haylett

Three years ago he was promoted to his present position. Mr. Haylett has taken an active part in the development of the company's refining department which now has more plants than any other company on the West Coast. These plants are located at Avila, Brea, Maltha, Oleum, Santa Paula and Wilmington, with a combined capacity of approximately 85,000 barrels of crude oil daily. Mr. Haylett has charge of the laboratories of these companies and all development and research work.

Previous to entering the employ of the Union Oil Co., Mr. Haylett graduated from Beloit College in Wisconsin. He was born in Milwaukee of the same State. In addition to the college work at Beloit, he spent three years at the Massachusetts Institute of Technology.

BUREAU OF STANDARDS PAPERS ON LUBRICANTS

In the past few years the Bureau of Standards of the Department of Commerce at Washington has issued a number of technical and scientific papers and circulars on various phases of the manufacture and testing of lubricating oils. The following list shows some of the more important subjects discussed by the bureau, including its file and the year of publication.

Reclamation of Used Petroleum Lubricating Oil, technical paper 223, 1922.

Motor Lubricating Oils, letter circular 170, 1925.

Action of Sunlight and Air on Some Lubricating Oils, scientific paper 153, 1910.

The Viscosity of Gasoline, technical paper 125, 1919.

The Behavior of High-Boiling Mineral Oils on Heating in the Air, scientific paper 160, 1910.

Resistance of an Oil to Emulsification, technical paper 86, 1917.

Quantitative Test for Resistance of Lubricating Oils to Emulsification, technical paper 86, 1917.

Data on Oxidation of Automobile Cylinder Oils, technical paper 73, 1916.

The Carbonization of Lubricating Oils, circular 99, 1920.

The Effect of Added Fatty and Other Oils Upon the Carbonization of Mineral Lubricating Oils, technical paper 4, 1911.

The Saybolt Viscosity of Blends, technical paper 164, 1920.

A Standardized Method for the Determination of Solidification Points, Especially of Naphthalene and Paraffin, scientific paper 340, 1919.

National Directory of Commodity Specifications, miscellaneous 65, 1925.

Sulphur in Petroleum Oils, technical paper 177, 1920.

The Evaporation Test for Mineral Lubricating and Transformer Oils, technical paper 13, 1913.

Determination of Absolute Viscosity by Short Tube Viscosimeters, technical paper 100, 1917.

The Standard Saybolt Universal Viscosimeter, technical paper 112, 1919.

The Redwood Viscosimeter, technical paper 210, 1922.

Standard Substances for the Calibration of Viscosimeters, special paper 298, 1917.

TO RESUME SCHOOLS FOR PLANT EMPLOYES

Preparations for a series of district meetings and schools of instruction for employes of natural gasoline plants and plant operators are being completed by the Association of Natural Gasoline Manufacturers, according to A. V. Bourque, secretary. Although a definite date has not been set, the first meeting will be held at Burbank and the second at Breckenridge, Tex., early in October. There will be no scheduled papers at any of the group meetings, but each will be devoted to open discussions of all phases of natural gasoline making.

E. L. Peck, general manager of the Empire Gasoline Co. of Bartlesville, Okla., and president of the Association of Natural Gasoline Manufacturers, has been appointed a member of the advisory board of the Liquid Fuels Committee of the Federal Specifications Board of the Bureau of Standards at Washington. This is the first time the natural gasoline industry has had a representative on the advisory board.

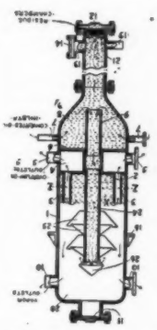
Recent Patents

1,550,673.—Treatment of Cracked Oils. Benjamin T. Brooks, Sound Beach, Conn., assignor to the Mathieson Alkali Works, Inc., New York, N. Y., a corporation of Virginia. Filed February 17, 1923. Serial No. 619,766. Six claims. (Cl. 196—71.)

1. The method of treating lighter hydrocarbon oils resulting from the cracking of heavier petroleum oils, which comprises subjecting such lighter oils alone and in the liquid phase to a high temperature below that at which any appreciable cracking takes place under high pressure and thereafter distilling the treated oil, continuing the treatment preceding distillation until volatile coloring materials present are converted into constituents non-volatile during the subsequent distillation.

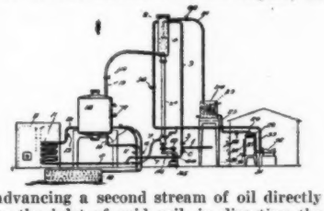
1,549,894.—Oil-Converting-Apparatus Dome. Joseph H. Adams, Flatbrush, N. Y., assignor to The Texas Co., Houston, Tex., a corporation of Texas. Filed February 27, 1920. Serial No. 361,665. Seven claims. (Cl. 183—2.5.)

1. A device of the nature disclosed comprising a dome provided with a lower liquid cistern, an upper vapor space and an intermediate overflow chamber, communicating connections between the lower liquid cistern and the vapor space also between the vapor space and said overflow chamber, an inlet for supplying oil to said liquid cistern from whence it passes upwardly into said vapor space and thence downwardly into said overflow chamber, an outlet to carry off the vapors separated from the oil in said vapor space, an outlet for removing the oil from said overflow chamber, and a chamber below and in communication with said liquid cistern for receiving the residue settling out of the oil therein.



1,550,607.—Process for Treating Petroleum Oil. Carbon P. Dubbs, Wilmette, Ill., assignor to Universal Oil Products Co., Chicago, Ill., a corporation of South Dakota. Filed April 5, 1923. Serial No. 629,974. Three claims. (Cl. 196—58.)

An oil conversion process, consisting in advancing a stream of oil through a coil in a heating zone wherein it is subjected to a conversion temperature while maintained under a superatmospheric pressure, in passing the highly heated oil from said stream into an enlarged reaction chamber from which no unvaporized oil is permitted to return to said coil, in passing the evolved vapors from said reaction chamber to a dephlegmator, in passing a stream of charging oil in heat interchanging relation with the vapors in said dephlegmator to simultaneously preheat such oil and condense the heavier fractions of the vapors, in



advancing a second stream of oil directly to the inlet of said coil, in directing the preheated charging oil and the reflux condensate from the dephlegmator to pressure applying means, and in forcing said prehated oil and reflux condensate under mechanically applied pressure into said advancing second stream of oil to be passed therewith through said coil.

1,550,608.—Lubricating Oil and Process of Producing Same. Warren F. Faragher and Robert W. Henry, Pittsburgh, and William A. Gruse, Wilkinsburg,

(Continued on Page 128)

CHICAGO MARKET SHOWS STRENGTH AS STOCKS OF JOBBERS RUN LOW

By J. B. Waldo

CHICAGO, Sept. 12.—The activity and strength shown in the gasoline market has been as welcome to the refiners as it has been unexpected to many sellers of gasoline. The gallonage during July was large, it was larger during August, but the larger gallonage during September than the preceding month was rather a surprise. There was a severe depletion of those reserves that stand as a sort of buffer between the actual consumer and the refiner. The price reductions in tank wagon rates and in crude posted prices were widely heralded and every body was inclined to hold back their orders. Consumers bought lightly in many cases, garages did not carry their average supplies, jobbers' stocks were suffered to run low because gasoline was going to be available at a lower price.

Then the thing happened that many oil men had foreseen as possible, the buying movement began. Every agency that had gasoline to sell began to have more business. Some refiners advanced their price, others followed and the daily grist of orders grew and more orders followed. Judging from reports received there was a nearly simultaneous increase in the demand from all parts of the country east of the Rocky Mountains. The Atlantic coast absorbed its excess of gasoline from California and had no more to ship to inland points like Pittsburgh and that market began to seek, for the first time in many months, considerable quantities of gasoline from western sources. The North Texas refiners who had begun to offer their gasoline freely in competition with the Group 3 product, quoting as low as 8 cents, North Texas, for U. S. Motors gasoline found a demand from exporters and the East that took their product away to the Gulf. As nearly as can be judged at this writing, there is no refiner with any sort of an output that is not well sold ahead and at prices that, while low as compared with the early June, are better than some refiners expected to rule two weeks ago at this time. One refiner said about that time that 7-cent gasoline was certain before the end of the month and another that gasoline was "headed for the rocks." All of which might have been true if, and it proved to be a very important if, the buying did not increase.

How long this market will continue to be as strong is said by a good many to be just as long as the weather holds fine. The market is strong today because available supplies are short of the requirements of buyers. But once the requirements of these buyers are satisfied there may be some lull and then the refiners will be able to assure themselves a satisfactory condition by restraint in production.

Grades in Demand

The demand has been still most largely for the 56-58 450 and the 58-60 437 end points with a more active demand for the former than was the case ten days ago when with low costs the jobbers were mostly ordering U. S. Motors grade. Probably this return to the less expensive grade is temporary as the season of the year is close at hand when the 56 gravity will not give satisfaction in many parts of the territory. There has been no call for nor any offerings of the so-called motor blends in this market. The higher gravities have sold only fairly well for domestic shipment but there has been a good export business claimed in the 60-62 400, and several rather large inquires for the 64-66 375 and 390 end points. Prices on these have just about kept pace with the advance in U. S. Motors. Natural gasoline has not moved freely but the prices are one-half cent higher according to the quotations to buyers.

Kerosene Steady

Kerosene is moving steadily and largely. One refiner stated that his kerosene shipments during the first 10 days of September were larger, he thought, than for three or four months previous. There has been buying for export and some of the larger distributing concerns have bought for their own stations in trainloads. This, with steady buying from the smaller jobbers, has brought about a real scarcity in the product according to refiners and prices are higher with some asking 5 cents for the 41-43 and 5½ cents for the 42-44 with none for immediate delivery at even these prices.

Distillates Firm

Distillates are firm but the spot activity is not great. A few cars a day is the record so far as new business is concerned. However, some of the largest sellers have oversold and contracted to cover their requirements during the week. It would not be surprising to see these grades of refinery products advance quite sharply with the beginning of the winter season about October 1. When the delaying dealers stock up and the deliveries on contracts begin, there should be a great deal of activity. That stocks are rather well in hand is shown by a little incident. The salesman for a refiner that has worked for advanced business in distillates, through some misunderstanding sold a good, big customer several cars of distillate. His refinery informed him that they could not spare the oil and the orders were finally turned over to a marketer who was selling the same buyer some of his distillates. It will take a lot of furnace oil to supply all the burners now installed or that will be installed before December when the active installing is over.

Selling Heat

The coal men have been holding a meeting in Chicago at which they have adopted a plan to sell not coal but heat. They propose to make contracts with house owners to heat their homes for so much per season. The service includes janitor work and removal of ashes. Each home will be appraised as a heating problem. Certain modifications in the way of insulation, of caulking around windows and the like will be required when necessary but the outline of the plan is for the coal men to conract to heat the home and do all the work furnishing not coal but temperature. The plan is in embryo yet but it is seriously contemplated and is considered as entirely feasible. Committees have been appointed for a national organization and to work out the details. This plan is admittedly to enable the coal man to compete with the oil burner.

Gas Oil Better

Gas oil is in a little better demand, at least there has been considerable inquiry for gasoline from several sources and the strength of the market generally is also responsible for some of the better tone. There has been some buying recently of 32-36 gas oil without cold test specifications at a little less than 3 cents at the refineries but the bottow now is 3 cents and many sellers are asking the trade 3¼ cents.

Fuel Oil Season Near

Fuel oil is doing little better and some experienced fuel oil men say they believe the beginning of the season of larger buying is at hand. Some contracts have been made by refiners with industrial concerns for the season. The activity is not great yet and there are a number of buyers who are still holding back and waiting for a crude decline which they claim is certain to come. Oil men point out that a crude decline would have little effect on the spot market or on contracts to be made as it would hardly decline the fuel oil market more than 5 cents a barrel at this season of the year and there is every possibility the market will advance later in the season more than any possible decline at this time. The market is peculiar in that buyers have a set opinion as to price and that is just about the refinery price of 24-26 fuel oil but these buyers when they place their orders do not make them for large quantities. The coal strike to date has totally failed as a scare to make the large users of fuel of any sort place early orders. The spot demand is only fair, the offerings light and prices firm at just about last week's level.

Little Change in Lubs

Lubricating oils show little change. Refiners state the demand is neither very good nor bad, just a routine demand with hopes for improvement as the industries strike their fall stride. Price changes are few and unimportant. The consumption this year of motor fuels has undoubtedly broken all records but there has been additional and very active competition due in part to the more active interest in their lubricating sales displayed by some of the very largest companies. The Standard Oil Co. (Indiana), is making much more of its lubricating business and recent changes in the management of this department foreshadow even greater activity in seeking business. The lubricating department of Cosden Sales Corp., under the management of George Brodie, has done a large business and in fact several of the larger organizations have been very active in extending the sale of their products both by national advertising and through special contracts with distributers.

Tank Wagon Prices

Tank wagon prices have not been generally changed over this territory and it would seem foolish with such large consumption at present prices to reduce the cost to the consumer when it would amount to very little in the case of each consumer and would reduce the profits of the sellers materially. Only one thing can bring it about and this is excessive competition, evidenced by price cutting. The peculiar position of a very few large companies who have stations covering entire States and in one or two cases several states makes it possible for these companies to seek contracts from concerns in position to bunch their business over a territory with one company and secure a substantial discount. But it must be remembered that this business while bulking large is taken at a low price and the profit is materially less than on the sales at full station prices to the individual, local consumer. It may prove that the smaller distributer who secures these full prices but holds his trade by the quality of his product, the extent of his service and his only personal ability to secure and hold customers, will lose little or nothing by not catering to the requirements of some of the larger trucking and other organizations whose business bulks large but shows little profit.

What has been said regarding the desire of the large refining companies to increase their sales of lubricating oils and greases shows that they as well as the smallest retailer see the desirability of selling the whole line and not making a specialty of the bulk product, which is gasoline. There are many of the smaller local stataions in this city that do not sell enough gasoline to pay their attendants' salaries and rely on the oil and grease business to make the business profitable. Some are in manufacturing districts where they are able to work up a nice jobbing business in these products.

PENNSYLVANIA MARKET REPORTS FAIR DEMAND

OIL CITY, Pa., Sept. 12.—Nothing very startling developed in this district during the past week in the gasoline market although the demand is still fair.

There is a good demand now for kerosene at the prevailing prices.

Neutrals and wax are strong with a good demand.

Cylinder stocks are not moving very well at present.

Fuel oil is in good demand.

NORTH TEXAS MARKET DISTINCTLY STRONGER

FORT WORTH, Sept. 12.—Contrary to expectations there was a distinct strengthening of the refined oil markets in North Texas territory during the week. There have been a great many more buyers in the gasoline market than since the market began to weaken nearly two months ago.

Export buyers got into the gasoline market and while they did not make any very extensive purchases more of this product was sold than for three weeks. Purchases ran somewhere in the neighborhood of 4,000,000 gallons. Some was also purchased in the Shreveport territory.

The market on U. S. Motor Oil late in the week was 8½-3¾ cents, while 56-58, 450 end point was being quoted at 8⅜ to 8½ cents and 64-66, 375 end point gasoline was bringing 10½ to 10⅞ cents. The market on natural gasoline was also strong with manufacturers reporting practically sold out.

The kerosene market was characterized as strong with 41-43 water white kerosene going at 4½ to 4¾ cents. It was said prime white could be had at about one-fourth of a cent less, but there was practically none available.

Gas oil was strong, one refiner in the Wichita Falls territory having sold one fairly good consignment at 3½ cents. The fuel oil market is only in fair shape but firmer than it has ever been known at this season. Some little fuel could be had at Burkburnett at $1.05 early in the week, but later quotations were $1.10 to $1.15 in the Wichita Falls territory.

The crude oil market is much firmer and this is probably responsible for most of the strength in the refined market. All the major pipe line companies are taking on new connections wherever offered and at least two are actually soliciting new connections. While there has been absolutely no tendency during the present price slump toward the rejection of new connections, the fact that some are soliciting is taken as an indication of a remarkable strength in the crude market.

COASTAL QUOTATIONS ARE SOMEWHAT SOFTER

HOUSTON, Texas, Sept. 14.—Quotations on unfiltered pale, red and filtered Costal lubs are somewhat softer, ranging one-half cent lower. No. 3 color, 300 pale, is quoted 13½-14 cents, and No. 3½ color, 500 viscosity, pale is 15½-16 cents. No. 4 color, 750 viscosity, pale is quoted 20-20½ cents. No. 6 red, 750 viscosity is 18-18½ cents.

Gas oil is also weaker, being quoted 4½-4¾ cents. Coastal fuel oil is unchanged at $1.45-$1.50.

Refiners report an increase in contracts for winter requirements from northern territory and expect inquiries and orders will further increase with colder weather. A good business is being handled in 300, 500 and 750 viscosity, coming from points in the South.

Galveston motorists are enjoying the benefit of a gasoline "war." Prices range from 15 cents to 19 cents at service stations. The Magnolia and Gulf companies posted 19 cents and The Texas Co. 17 cents at service stations. Independent marketers have posted 15 cents per gallon.

NEW OKLAHOMA CITY FIRM

OKLAHOMA CITY, Sept. 12.—C. A. Mattson, who until recently was sales manager of the Red Seal Oil Refining Corp. of Oklahoma City, has organized the C. A. Mattson Co., which is engaged in the sale at wholesale of petroleum products. The general office is in Oklahoma City. Mr. Mattson was with The Texas Co. 10 years before becoming sales manager a few years ago for the Choate Oil Corp. Later he was general manager of the Mattson Oil Co. before taking a position with the Red Seal Corp.

DOWNWARD SWING HALTS IN EAST BUT FURTHER CUTS ARE EXPECTED

By N. O. Fanning

NEW YORK, Sept. 12.—The Eastern refined oil markets were quiet during the past week. The major downward swing in gasoline prices seemed to be for the time being stemmed. However, a canvass of the territory in and around Greater New York reveals many evidences of price cutting on the part of small retailers, some of which are selling to consumers at 17 cents per gallon, while the nominal tank wagon price is at that figure. For this reason, and because unfavorable weather has cut consumption somewhat, it is believed further price cutting by big Standard Oil and independents is likely before the price structure is finally stabilized.

It is thought the Mid-Continent market may show some firmness as some large exporters are considering entering that market for export grade gasoline. Eastern refiners have cut down refinery operations somewhat and it is possible some of them may also be in the open market temporarily.

At 8½ cents per gallon Mid- Continent motor gasoline is selling at the same price which prevailed December 1, 1924. At that time the New York tank wagon price was 15 cents, but at present it is quoted at 17. The present differential of 8½ cents is considered large enough to encourage shipping Mid-Continent gasoline East and past experience shows that this differential must be diminished to about 6 before the movement will be halted. A readjustment downward in the New York territory or an upward move in the Mid-Continent can therefore be expected in the near future. The situation here indicates that the New York market will drop.

Kerosene Firm

The eastern kerosene market is firm, with a continued good movement into domestic and export channels. Although stocks are ample refiners appear reluctant to sell the product at present quotations as they anticipate an improved demand within a few weeks.

Gas and Fuel Oils

Gas oil is quiet, but the price holds steady. Fuel oils are steady. Furnace oil is available in tank wagon lots of 1,500 gallons at 9 cents per gallon, and is moving briskly. At least 50 new apartment houses in New York are nearing completion which will use this product for fuel instead of coal, being equipped with oil burners. This should cause a rather sudden increase in demand.

Diesel oil is steady at $2.10 per barrel, although some sales at $2 have been reported, the bulk of the business is being done at the higher figure.

Bunker fuel oil is unchanged at $1.65 per barrel, but the price tendency is downward. A further depression in shipping is believed responsible for this. New ship construction has been featured by motorships using Diesel oil for fuel. New ships using bunker fuel oil are said to form a smaller proportion of the total construction, and vessels already using bunker oil are not so active.

Furthermore, stocks of fuel oil are piling up in California and some marketers here look for competition from that source during the next few months.

Lubricating Oils

The market for lubricating oils continues firm, with a steady improvement in industrial demand but a slight falling off in the automobile trade. Cylinder stocks are moving more freely.

Paraffin wax is unchanged in price, but is in better demand.

Export Market

The Standard Oil Co. of New Jersey reduced motor gasoline in cases one-half cent per gallon. The company has withdrawn publication of all quotations on gasoline and kerosene except for cased lots. The new price for motor gasoline is 27.65 cents per gallon (in cases). Standard white kerosene in cases remains at 16.15 cents per gallon and water white in cases at 17.15 cents.

The purpose of this action is that little bulk or barrel business in either gasoline or kerosene is handled at New York. Most of it goes by way of the Gulf Coast. Therefore it was deemed superfluous to publish nominal prices on bulk or barrel shipments. Other New York refiners have taken action similar to that of the Standard Oil Co. of New Jersey and are quoting only cased oil.

Tanker Charters

New fixtures in the oil tanker charter market include:

Unnamed steamer, September-October delivery, 150,000 cases from New York to three ports of the Pacific Islands and three ports Queensland, 38 cents for six ports.

Tanker Merope (Fr.), 4,143 tons net, October loading, Gulf to Cette or Azeu, 17 to 18 shillings per ton.

The following table shows principal exports of petroleum and petroleum products from New York during the past three weeks (figures in gallons unless otherwise noted in parenthesis):

	Week ended Sept. 9	Sept. 2	Aug. 26
Gasoline:			
Bulk	1,402,535	.....	.....
Barrels	.....	247,400	.....
Cases	103,000	1,748,600	910,511
Kerosene:			
Cases	666,450	2,889,680	1,662,960
Lubricating oil:			
Bulk	.....	.....	115,000
Barrels	680,450	943,450	890,100
Cases	191,440	81,210	47,640
Lubricating grease:			
Barrels (bbls.)	525	.....	.....
Paraffin Wax:			
Bags (lbs.)	.....	2,013,000	770,660
Crude oil:			
Barrels	.....	334,850	.....

Consignments of less than 500 barrels or 1,000 cases are not included in the foregoing table.

Bulk movement consisted of but one cargo, consisting of 1,402,535 gallons of gasoline to England by the Anglo-American Oil Co.

Cased shipments fell off sharply.

Oil Receipts

Estimated receipts of crude and refined oil at Atlantic ports by water averaged 508,000 bbls. daily during the week ended September 9. This figure included 336,000 bbls. daily from the Gulf Coast, 93,000 bbls. daily from California and 79,000 bbls. daily imported.

The following table shows estimated daily average receipts of crude and refined oil by water at Atlantic Coast ports from the Gulf and Pacific Coasts of the United States, and imports, for the last three months; also monthly record for the last 12 months, (figures in barrels):

	Week ended Sept. 9	Sept. 2	Aug. 26
Gulf Coast	336,000	267,000	317,000
Pacific Cost	93,000	23,000	85,000
Imports	79,000	56,000	82,000
Total	508,000	346,000	484,000

Daily Averages by Month

1925:	Gulf	Pacific	Imports	Total
August	291,000	54,000	90,000	435,000
July	391,000	63,600	107,000	561,000
June	379,000	66,000	118,000	563,000
May	312,000	81,000	145,000	538,000
April	352,000	78,000	101,000	532,000
March	273,000	82,000	135,000	490,000
February	262,000	51,000	147,000	460,000
January	311,000	77,000	133,000	521,000
1924:				
December	306,000	83,000	85,000	474,000
November	246,000	80,000	150,000	476,000
October	246,000	120,000	88,000	454,000
September	270,000	104,000	101,000	475,000

The foregoing estimates are based on the carrying capacity of incoming oil-laden tankers.

THOMAS POOL NOW CENTER OF INTEREST

(Continued from Page 21)

No. 3 Herbig, in the SE SW SE of the same section at 2,705 feet. The Twin State Oil Co. has also shut down its No. 5 Siler, east offset to the Marland Oil Co.'s No. 1 Turk, in the NW SW NW of Section 22, at 3,501 feet until the Marland well supplies more data on the fault line controversy. The latter test was drilling at 4,012 feet with cable tools, according to Monday's report, and should be able to shed considerable light on the future possibilities of the Thomas Pool within the coming week.

One of the most interesting tests in the entire field was halted abruptly in its progress toward the sand just as it was within a few feet of the Wilcox level. It is the Marland Oil Co.'s No. 1 School Land 25, in the SE SW of Section 16. It reached the chat at 4,232 feet and was drilled to 4,266 feet, and was carrying a hole full of oil, when somebody made a costly mistake while running pipe and the shoe joint was dropped from the top of the hole. Fishing is still in progress without any success so far, while the oil slops out of the hole occasionally. The south offset to this well, the Wentz Oil Corp.'s No. 2 Thomas, was swabbing 6 bbls. an hour Monday from the chat formation at 4,298-4,329 feet.

Evidence of the unconformity between the various strata in this field is furnished by a comparison of the depths at which oil was found below the red rock in several of the wells. The Twin State's No. 2 Siler went 133 feet below the red rock before it picked up the top of the oil sand, while the deep sand discovery well, 660 feet north of it, never had any red rock at all in that zone, and the Marland Oil Co.'s No. 1 School Land 25, mentioned above, drilled into oil in chat just 30 feet below the red rock. The Marland Oil Co.'s No. 5 Thomas, in the NW SW of Section 15, had this red rock at 4,320-30 feet, showing that the structure dips sharply in the half mile to the north from No. 1-A on the same lease.

May Only Cover One Section

With a sharp dip to the west, north and northeast already established, and either a fault or an extremely abrupt falling away to the south and southeast, it is evident that the pool will probably be confined to little more than a section if, indeed, it will ever cover that much territory.

Several tests are nearing the prolific sand depth and may cause a substantial jump in the field's production. In addition to the Marland's No. 1 School Land 25, mentioned above as fishing for a joint of casing, and the Selby and Gypsy wells, which are down below 4,475 and 4,465 feet respectively, and the Wentz Oil Corp.'s No. 2 Thomas, also previously mentioned as swabbing 6 bbls. an hour at total depth of 4,329 feet, the Marland Oil Co.'s No. 5 Thomas, in the NW SW of Section 15, was drilling Monday at 4,355 feet; the same company's No. 3 School Land 24, in the NE SE SE of Section 16, was running the 5-inch casing to total depth of 4,045 feet, and the same company's No. 1 Turk, in the NE SE NE of Section 21, was drilling at 4,012 feet.

Thirty-one wells were drilling for the Wilcox sand in the Thomas Field Monday morning, and in addition to these, one rig was shut down and five drilling wells were shut down temporarily.

Important Semi-Wildcats

Among the semi-wildcats which are being drilled around the Thomas Pool, and which are shown on the accompanying map, the most important now is the Gypsy Oil Co.'s test on the Chambers lease in the SE NW of Section 9-25-2w, about 1½ miles northwest of the field. It is on the other side of the old Besdor dry hole, shown on the map, and is on a separate structure from the Thomas Pool. It was drilling Tuesday morning at 3,050 feet, and if it finds commercial production will open up a new pool, as the Marland Oil Co.'s No. 5 Thomas, located between the old Besdor well and the Thomas deep sand discovery is lower structurally than the Besdor hole.

The Twin State Oil Co. decided to complete its No. 4 Siler, south offset to the Marland Oil Co.'s No. 1-A Thomas, in the sand at 2,560-74 feet, where it was good for 142 bbls. instead of going on to the Wilcox sand with it, as originally intended. The twin to it, No. 1 Siler, which has been producing from total depth of 2,061 feet, will be deepened to the Wilcox with rotary tools in lieu of No. 4, which was making slow progress with cable tools. A comparison of the speed of rotary and standard outfits in this field can be observed on the

(Continued on Page 124)

RECEIPTS OF CALIFORNIA OILS; AUGUST IMPORTS OF PETROLEUM

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the month of August totaled 2,148,000 bbls., a daily average of 69,290 bbls., compared with 2,788,000 bbls., a daily average of 89,935 bbls. for the month of July.

Receipts at Atlantic and Gulf Coast ports for the week ended September 5 totaled 214,000 bbls., a daily average of 30,571 bbls., against 238,000 bbls., a daily average of 34,000 bbls. for the week ended August 29.

CALIFORNIA OIL RECEIPTS AT ATLANTIC AND GULF COAST PORTS
(Barrels of 42 gallons.)

	Total August	Total July	Wk. End. Sept. 5	Wk. End. Aug. 29
At Atlantic Coast Ports—				
Baltimore	113,000	160,000	.....	.....
Boston	303,000	354,000	76,000	.....
New York	988,000	1,175,000	.....	238,000
Philadelphia	155,000	436,000	138,000	.....
Others	411,000	398,000	.....	.....
Total	1,970,000	2,523,000	214,000	238,000
Daily average	63,548	81,387	30,571	34,000
At Gulf Coast Ports—				
New Orleans and Baton Rouge	160,000	*265,000	.....	.....
Tampa	18,000	.....	.....	.....
Total	178,000	265,000	.....	.....
Daily average	5,742	8,548	.....	.....
Total Atlantic and Gulf Coast ports	2,148,000	2,788,000	214,000	238,000
Daily average	69,290	89,935	30,571	34,000

*Revised.

According to figures collected by the American Petroleum Institute, imports of crude and refined oils at the principal ports for the month of August totaled 5,162,000 bbls., a daily average of 166,516 bbls., compared with 5,545,000 bbls., a daily average of 178,871 bbls. for the month of July.

Imports at the principal United States ports for the week ended September 5 totaled 902,000 bbls., a daily average of 128,858 bbls., compared with 1,269,000 bbls., a daily average of 181,286 bbls., for the week ended August 29.

IMPORTS OF PETROLEUM AT UNITED STATES PORTS
(Barrels of 42 gallons.)

	Total August	Total July	Wk. End. Sept. 5	Wk. End. Aug. 29
At Atlantic Coast Ports—				
Baltimore	312,000	415,000	98,000	141,000
Boston	275,000	246,000	.....	80,000
New York	1,446,000	1,349,000	226,000	287,000
Philadelphia	478,000	547,000	134,000	135,000
Others	776,000	693,000	.....	56,000
Total	3,287,000	3,250,000	458,000	699,000
Daily average	106,032	104,839	65,429	99,857
At Gulf Coast Ports—				
Galveston district	652,000	770,000	194,000	205,000
New Orleans and Baton Rouge	1,011,000	*1,131,000	250,000	289,000
Port Arthur and Sabine district	82,000	158,000	.....	76,000
Tampa	130,000	236,000	.....	.....
Total	1,875,000	2,295,000	444,000	570,000
Daily average	60,484	74,032	63,429	81,429
At All United States Ports—				
Total	5,162,000	5,545,000	902,000	1,269,000
Daily average	166,516	178,871	128,858	181,286

*Revised.

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

GASOLINE AND NAPHTHA

	Sept. 15		Sept. 8		Sept. 1	
OKLAHOMA (Group 3)—						
50-52 450 end point (Naphtha)	.08¼	.08½	.07¾	.08	.08	.08¼
56-58 450 end point	.08¾	.09	.07⅞	.08	.08	.08¼
58-60 437 end point (U. S. Motor)	.09	.09½	.08¼	.08½	.08½	.08¾
60-62 400 end point	.10½	.10¾	.10	.10¼	.10¼	.10½
64-66 375 end point	.11½	.11¾	.11	.11¼	.11¼	.11½
68-70 350 end point	.12½	.13	.11¾	.12	.12	.12¼
KANSAS—						
58-60 437 end point (U. S. Motor)	.09½	.09¾	.08½	.08¾	.08¾	.09
NORTH TEXAS—						
48-52 450 end point (Naphtha)	.08	.08¼	.07¾		.08	
50-52 440 end point (Naphtha)	.08¼	.08½	.07¾	.08	.08	.08¼
56-58 450 end point	.08¾		.07¾	.08	.08	.08¼
58-60 437 end point	.09	.09¼	.08⅛	.08¼	.08½	.08¾
60-62 400 end point	.10¼	.10½	.09⅞	.10	.10¼	
64-66 390 end point	.11	.11¼	.10½	.10¾	.11	.11¼
64-66 375 end point	.11¼	.11½	.10¾	.11	.11¼	.11½
68-70 360 end point	.12½	.12¾	.11¾		.12	
NORTH LOUISIANA—						
56-58 450 end point	.09	.09¼	.08¾	.09	.08¾	.09
58-60 437 end point (U. S. Motor)	.09½	.09¾	.09	.09¼	.09	.09¼
60-62 400 end point	.10¾	.11	.10¾	.11	.10¾	.11
64-66 390 end point	.11½	.11¾	.11½	.11¾	.11½	.11¾
64-66 375 end point	.11¾	.12	.11¾	.12	.11¾	.12
ARKANSAS—						
58-60 450 end point	.09¼	.09½	.08¾	.09	.08¾	.09
58-60 437 end point (U. S. Motor)	.09½		.09	.09¼	.09	.09¼
64-66 375 end point	.12	.12¼	.11¼	.11½	.11¾	.12
ROCKY MOUNTAIN STATES—						
*58-60 437 end point (U. S. Motor)	.12	.12¼	.11¼	.11½	.11½	.11¾
PENNSYLVANIA—						
52 Naphtha	.12	.12¼	.12	.12¼	.12¼	.12½
54 Naphtha	.12	.12¼	.12	.12¼	.12½	.12¾
56 Naphtha	.12¼	.12½	.12¼	.12½	.12¾	.13
58 Naphtha	.12¼	.12½	.12½	.12¾	.12½	.13
60 Gasoline	.13¼	.13½	.13½	.13¾	.13¾	.14
62 Gasoline	.14	.14½	.14	.14½	.14½	.15
64 Gasoline	.15¼	.15½	.15¼	.15½	.15½	.16
66 Gasoline	.16	.16½	.16	.16½	.16½	.17
68-70 Gasoline	.18½	.19	.18½	.19	.18½	.19
CALIFORNIA—						
54-58 437 end point (U. S. Motor) domestic	.09	.09½	.09	.09½	.11	.11½
CHICAGO DIST. (Based on Group 3)—						
50-52 450 end point (Naphtha)	.08¾	.09	.08	.08¼	.08¾	.09
56-58 450 end point	.08¾		.08	.08¼	.08½	
58-60 437 end point (U. S. Motor)	.09	.09¼	.08½		.08¾	.09
60-62 400 end point	.10¼	.10½	.10	.10¼	.10¼	.10½
64-66 375 end point	.11½	.11¾	.11	.11¼	.11¼	.11½
68-70 360 end point	.12¼	.12½	.11¾	.12	.12	.12¼

NATURAL GASOLINE

	Sept. 15		Sept. 8		Sept. 1	
OKLAHOMA (Group 3)—						
Grade Double A, 80-87.9 375 e.p., rec. 90%	.12	.12¼	.11½	.11¾	.11¾	.12
Grade A, 72-79.9, 375 end point, rec. 90%	.12	.12¼	.11½	.11¾	.11¾	.12
Grade Double B, 84-92, 375 e.p., rec. 85%	.12	.12¼	.11½		.11½	.11¾
Grade B, 76-83.9, 375 end point, rec. 85%	.12	.12¼	.11½		.11½	.11¾
Grade C. 80-90, 375 end point, rec. 78%	.12	.12¼	.11¼	.11½	.11½	.11¾
NORTH TEXAS—						
Grade Double A, 80-87.9, 375 e.p., rec. 90%	.12	.12¼	.11½		.11½	.12
Grade A, 72-79.9, 375 end point, rec. 90%	.12	.12¼	.11½		.11½	.11¾
Grade Double B, 84-92, 375 e.p., rec. 85%	.12	.12¼	.11½		.11½	.11¾
Grade B, 76-83.9, 375 end point, rec. 85%	.12	.12¼	.11½		.11½	.11¾
Grade C. 80-90, 375 end point, rec. 78%	.12	.12¼	.11½		.11½	.11¾
NORTH LOUISIANA—						
Grade A, 72-79.9, 375 end point, rec. 90%	.12¼	.12½	.12	.12¼	.12½	.12¾
Grade B, 76-83.9, 375 end point, rec. 85%	.12	.12¼	.12	.12¼	.12½	.12¾
Grade C. 80-90, 375 end point, rec. 78%	.12	.12¼	.12	.12¼	.12½	.12¾
CALIFORNIA—						
78-85 absorption, 360-390 end point	.11	.11½	.11	.11½	.13	.13½
78-84 compression, 350 end point	.11½		.11½		.13½	
CHICAGO DIST. (Based on Group 3)—						
Grade Double A, 80-87.9 375 e.p., rec. 90%	.11½	.11¾	.11¼	.11½	.11½	
Grade A, 72-79, 375 end point, rec. 90%	.11½	.11¾	.11¼	.11½	.11½	
Grade Double B, 84-92, 375 e.p., rec. 85%	.11½	.11¾	.11¼		.11½	.11½
Grade B, 76-83.9, 375 end point, rec. 85%	.11½	.11¾	.11¼		.11¼	.11½
Grade C. 80-90, 375 end point, rec. 78%	.11½	.11¾	.11	.11¼	.11¼	

MOTOR NATURAL GASOLINE (BLENDS)

	Sept. 15		Sept. 8		Sept. 1	
OKLAHOMA (Group 3)—						
60-62 450 end point	.08¾	.09¼	.08¼	.08½	.08½	.08¾
68-70 430 end point	.10¼	.10½	.09	.09¼	.09	.09¼
NORTH TEXAS—						
58-60 450 end point	.08¾		.08¼		.08½	
PENNSYLVANIA—						
*60-62	.13½	.13¾	.13½	.13¾	.14	.14¼
*64-66	.13½	.13¾	.13½	.13¾	.14	.14½
*66-68	.13½	.13¾	.13½	.13¾	.14	.14½
*68-70	.13½	.13¾	.13½	.13¾	.14	.14¼
CHICAGO DIST. (Based on Group 3)—						
60-62 450 end point	.08¾	.09	.08¼	.08½	.08¾	.09
68-70 437 end point	.09	.09¼	.08½	.08¾	.09	.09¼

*At Sistersville, W. Va.

BURNING OIL

	Sept. 15		Sept. 8		Sept. 1	
KANSAS—						
41-43 water white Kerosene	.05	.05¼	.04¾	.05	.04⅝	.04¾
OKLAHOMA (Group 3)—						
41-43 water white Kerosene	.04⅞	.05	.04¾	.05	.04⅝	.04½
42-44 water white Kerosene	.05¼	.05½	.05¼		.05	
40-41 prime white Kerosene	.04¼	.04½	.04	.04⅛	.04	.04⅛
NORTH LOUISIANA—						
41-43 prime white Kerosene	.05	.05¼	.05	.05¼	.04¾	.05
42-44 water white Kerosene	.05¼	.05½	.05¼	.05½	.05	.05¼
ROCKY MOUNTAIN STATES—						
*40-44 water white Kerosene	.07¾	.08	.07½	.07¾	.07¼	.07⅝
NORTH TEXAS—						
41-43 water white Kerosene	.04⅝	.04⅞	.04⅜	.04½	.04¼	.04⅜
40-42 prime white Kerosene	.04⅛	.04¼	.04	.04⅛	.04	.04⅛
41-43 prime white Kerosene	.04⅜	.04⅝	.04¼	.04⅜	.04⅛	.04¼
42-44 water white Kerosene	.05		.04⅞	.05	.04⅞	.05
ARKANSAS—						
41-43 water white Kerosene	.05	.05¼	.04¾	.05¼	.04¾	.05
42-44 water white Kerosene	.05½		.05¼	.05½	.05¼	
PENNSYLVANIA—						
43 Kerosene prime white	.06	.06¼	.06	.06¼	.06	.06¼
45 Kerosene water white	.06¼	.06½	.06¼	.06½	.06¼	.06½
46 Kerosene water white	.06½	.06¾	.06½	.06¾	.06½	.06¾
47 Kerosene water white	.06¾	.07	.06¾	.07	.06¾	.07
34 Neutral	.07	.07¼	.07	.07¼	.07	.07¼
34 Sundebloom Neutral	.08	.09	.08	.09	.08½	.09
36 Miners' Neutral	.06¾	.07	.06¾	.07	.06¾	.07
300 Mineral Seal	.07	.07¼	.07	.07¼	.07	.07¼
CALIFORNIA—						
40-42 water white (high burning test)	.07½	.08	.07½	.08	.07½	.08
Engine distillate, 43-45 445 end point	.08½	.09	.08½	.09	.08½	.09
Engine distillate, 42-45 480 end point	.07¾	.08	.07¾	.08	.07¾	.08
CHICAGO DIST. (Based on Group 3)—						
41-42 water white Kerosene	.04⅞	.05¼	.04½	.04¾	.04¾	.04½
42-44 water white Kerosene	.05¼	.05½	.05	.05¼	.04¾	.05

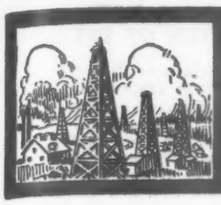
*Colorado points.

FUEL OILS

	Sept. 15		Sept. 8		Sept. 1	
KANSAS—						
24-26 Fuel Oil	1.15	1.20	1.15		1.10	1.15
32-36 Gas Oil	.03¼	.03⅜	.03¼	.03⅜	.03¼	.03⅜
38-40 Distillate	.03¾	.03⅞	.03¾	.03⅞	.03⅝	.03¾
OKLAHOMA (Group 3)—						
Below 22 Fuel Oil (sellers' cars)	1.02½	1.05	1.00		.95	
22-26 Fuel Oil (sellers' cars)	1.05		1.00	1.05	.95	1.00
24-26 Fuel Oil (buyers' cars)	1.05	1.10	1.02½	1.05	.97½	1.02½
24-26 Fuel Oil (sellers' cars)	1.05	1.10	1.02½	1.05	.97½	1.02½
28-30 Fuel Oil (sellers' cars)	1.12½	1.15	1.10	1.15	1.05	1.07½
32-36 Gas Oil	.03⅛	.03¼	.03¼	.03¼	.02⅞	.03
36-38 Distillate	.03½	.03⅝	.03¼	.03½	.03¼	.03½
38-40 Straw Distillate	.03⅝	.03⅞	.03⅝	.03¾	.03½	.03⅝
NORTH TEXAS—						
24-26 Fuel Oil (sellers' cars)	1.10	1.15	1.10	1.12½	1.07½	1.10
26-30 Fuel Oil	1.15		1.12½	1.15	1.10	1.12½
32-36 Gas Oil	.03¼	.03½	.03¼	.03¼	.03	.03⅛
38-40 Straw Distillate	.03½	.03¾	.03½	.03¾	.03½	
NORTH LOUISIANA—						
18-20 Fuel Oil	1.00	1.05	1.00	1.05	1.00	
32-36 Gas Oil	.03½	.03¾	.03½	.03¾	.03½	.03¾
ARKANSAS—						
38-40 Distillate	.03¾	.03⅞	.03⅝	.03¾	.03⅝	.03¾
32-36 Gas Oil	.03½	.03⅝	.03½	.03⅝	.03½	
22-26 Refinery Fuel Oil	1.05	1.10	1.05	1.10	1.05	1.10
GULF COAST (South Texas)—						
Gas Oil	.04½	.04¾	.05	.05¾	.05	.05¾
Fuel Oil	1.45	1.50	1.45	1.50	1.45	1.50
PENNSYLVANIA—						
30-34 Fuel Oil	.05⅛	.05¼	.05⅛	.05¼	.05½	.05¼
36-40 Fuel Oil	.05¼	.05½	.05⅝	.05½	.05½	.05⅝
CALIFORNIA—						
33-36 Distillate	.04¾	.05	.04¾	.05	.04¾	.05
27-33 Distillate	.04	.04½	.04	.04½	.04	.04½
15-20 Fuel Oil (at tidewater)	1.20	1.25	1.20	1.25	1.20	1.25
27 plus Diesel Oil	1.40	1.50	1.40	1.50	1.75	1.80
CHICAGO DIST. (Based on Group 3)—						
24-26 Fuel Oil (sellers' cars. Group 3)	1.05	1.10	1.05	1.10	.97½	1.00
18-22 (El Dorado)	1.00	1.05	1.00	1.05	.95	1.00
18-20 (Smackover)	1.00	1.05	1.00	1.05	.95	1.00
32-36 Gas Oil	.03¼	.03¼	.03	.03¼	.03⅛	.03¼
36-38 Distillate	.03⅝	.03¾	.03⅝	.03¾	.03⅜	.03⅝
38-40 Straw Distillate	.03¾	.04	.03¾	.04	.03⅝	.03⅞

LUBRICATING OILS AND WAX

	Sept. 15		Sept. 8		Sept. 1	
OKLAHOMA (Group 3)—						
79-80 vis., 2½ color, 20-25 cold test	.05¼	.05½	.05¼	.05½	.05¼	.05½
100 vis., 3 color, 20-25 cold test	.05¾	.06	.05¾	.06	.06	.06¼
100 vis., 2 color, 20-25 cold test	.06¼	.06½	.06¼	.06½	.06	.06¼
150 vis., 3 color, 20-25 cold test	.10½	.11	.10½	.11	.10½	.11
150 vis., 4 color, 20-25 cold test	.10¼	.10¾	.10¼	.10¾	.10½	.10¾
180 vis., 4 color, 23-28 cold test	.10¾	.11¼	.10¾	.11¼	.10¾	.11
180 vis., 3 color, 23-28 cold test	.11	.11½	.11	.11½	.11	.11½
200 vis., 3 color, 23-28 cold test	.12	.12½	.12	.12½	.12	.12½
200 vis., 4 color, 23-28 cold test	.11¾	.12¼	.11¾	.12¼	.11¾	.12¼
220 vis., 3 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
220 vis., 4 color, 25-30 cold test	.14	.14½	.14	.14½	.14	.14½
240 vis., 3 color, 25-30 cold test	.16	.16½	.16	.16½	.16	.16½
240 vis., 4 color, 25-30 cold test	.15½	.16	.15½	.16	.15½	.16
280 vis., 3 color, 25-30 cold test	.17½	.18	.17½	.18	.17½	.18
280 vis., 4 color, 25-30 cold test	.16½	.17	.16½	.17	.16½	.17
Red Neutrals:						
180 vis., 5 color, 23-28 cold test	.10½	.11	.10½	.11	.10½	.11
180 vis., 6 color, 23-28 cold test	.10	.10½	.10	.10¼	.10	.10½
200 vis., 5 color, 23-28 cold test	.11½	.12	.11½	.12	.11½	.12
200 vis., 6 color, 23-28 cold test	.11	.11½	.11	.11½	.11	.11½
220 vis., 5 color, 25-30 cold test	.13½	.14	.13½	.14	.13½	.14
220 vis., 6 color, 25-30 cold test	.13	.13½	.13	.13½	.13	.13½
240 vis., 5 color, 25-30 cold test	.15	.15½	.15	.15½	.15	.15½
240 vis., 6 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
280 vis., 5 color, 25-30 cold test	.15½	.16	.15½	.16	.15½	.16
Cylinder Stocks:						
180-200 vis., S. R. green, 40-45 cold test	.08½	.09	.09	.09½	.09	.09½
190-200 vis., S. R. green, 40-45 cold test	.07½	.08	.08	.08½	.08	.08½
170-190 dark green, 40-45 cold test	.06	.06½	.06½	.07	.06½	.07



REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

190-200 vis. @ 210 "D" Bright Stock	.36		.36		.36	
200-210 vis. @ 210 "E" Bright Stock	.31		.31		.31	
150 vis. @ 210 "D" Bright Stock	.30		.30	.32	.30	.32
150 vis. @ 210 "E" Bright Stock	.28		.28		.28	
Waxes:						
124-126 White Crude Scale Wax	.05¼	.05½	.05¼	.05½	.05¼	.05½
PENNSYLVANIA—						
150, 3 color	.17		.17		.17	
180, 3 color	.21		.21		.21	
200, 3 color	.23¼		.23		.23	
220, 3 color	.25		.25		.25	
600, steam refined	.15		.15¼		.15¼	
635, steam refined	.18¼		.19¼		.19¼	
650, steam refined	.19½		.20½		.20½	
600 Pennsylvania flash	.24		.24½		.24½	
630 Pennsylvania flash	.32		.33		.33	
*550, E filtered	.19½		.19¾		.19¾	
*600, E filtered	.20¾		.20¾		.21½	
600, E filtered	.19½		.19½		.21	
600, D filtered	.26		.26½		.26½	
550, E filtered	.19		.19		.19	
350, D filtered	.23		.23		.23	
Pennsylvania Bright Stock	.38		.38		.38	
122-124 White Crude Scale Wax	.05½		.05½		.05½	
†124-126 White Crude Scale Wax	.05⅝		.05⅝		.05⅝	

*At Warren, Pa. †At New York City.

GULF COAST (South Texas)—						
Zero Black	.06	.07	.06	.07	.06	.07
No. 2 color, 100 vis., pale oil	.07½	.08	.07½	.08	.07½	.08
No. 2½ color, 150 vis., pale oil	.10	.11	.10	.11	.10	.11
No. 3 color, 200 vis., pale oil	.12	.12½	.12	.12½	.12	.12½
No. 4 color, 300 vis., pale oil	.15½	.16	.16	.16½	.16	.16½
No. 3¾ color, 500 vis., pale oil	.18½	.19	.18½	.19	.18½	.19
No. 4 color, 750 vis., pale oil	.20	.20½	.20½	.21	.20½	.21
No. 2 plus color, 150 vis., pale filtered	.21		.21½		.21½	
No. 2 plus color, 200 vis., pale filtered	.22½		.23		.23	
No. 2½ minus color, 300 vis., pale filtered	.26½		.26½		.26½	
No. 2½ minus color, 300 vis., pale filtered	.26½		.26½		.26½	
No. 2½ color, 500 vis., pale filtered	.30½		.30½		.30½	
No. 2½ color, 700 vis., pale filtered	.40½		.40½		.40½	
No. 5 to 6 color, 200 vis., red oil	.10½	.11	.10½	.11	.10½	.11
No. 5 to 6 color, 300 vis., red oil	.12½	.13	.12½	.13	.12½	.13
No. 5 to 6 color, 500 vis., red oil	.14½	.15	.14½	.15	.14½	.15
No. 5 to 6 color, 750 vis., red oil	.18	.18½	.18½	.19	.18½	.19
CALIFORNIA—						
130 pale, 2½-3 color	.12	.12½	.12	.12½	.12	.12½
200 vis., 2½-3 color	.15½	.16	.15½	.16	.15½	.16
300 vis., 3 -3½ color	.17	.17½	.17	.17½	.17	.17½
350 vis., 3½-4 color	.18½	.19	.18½	.19	.18½	.19
400 vis., 3½-4 color	.20	.20½	.20	.20½	.20	.20½
Red Neutrals:						
200 vis., 4½-5 color	.14	.14½	.14	.14½	.14	.14½
300 vis., 5 -6 color	.15	.15½	.15	.15½	.15	.15½
400 vis., 5 -6 color	.17	.17½	.17	.17½	.17	.17½
500 vis., 4½-5 color	.20	.21	.20	.21	.20	.21
500 vis., 6 -6½ color	.18	.19	.18	.19	.18	.19
600 vis., 6½ plus color	.19	.19½	.19	.19½	.19	.19½

Note: Bright stocks are not manufactured commercially on the Pacific Coast.

NEW YORK DOMESTIC MARKET

Bayonne Refinery Prices:	Sept. 15	Sept. 8	Sept. 1
U. S. Motor Gasoline, 58-60 437	.13	.13	.14½
Export Gasoline, 64-66 Be.	.16		
*Bunker Oil, 14-16 Be.	1.65	1.65	1.65
Diesel Oil, New York City	2.10	2.10	2.10
Furnace Oil, New York City	.09	.10	.10
Gas Oil, 32-36 Be.	.06¼	.06¼	.06¼
41-43 Kerosene prime white	.06	.06	.06¼

*Lighterage, 6.5c a barrel extra.

NEW YORK EXPORT PRICES

Motor Gasoline:	Sept. 15	Sept. 8	Sept. 1
58-60 Be. gravity, in cases	27.65	28.15	28.15
Standard White Kerosene, in cases	16.15	16.15	16.15
Water White Kerosene, in cases	17.15	17.15	17.15
†Lubricating Oils (in bulk):			
Cylinder Stock, extra filtered, 600, barrels	.35	.35	.35
Cylinder Stock, light filtered, 600, barrels	.30	.30	.30
No. 1 white Neutral, .878 spec. grav.	.36	.36	.36
No. 5 Bright Stock, .897 spec. grav.	.40	.40	.40
Special "A" red oil, .897 spec. grav., 170 vis.	.12	.12	.12
No. 2 red oil, .903 spec. grav., 212 vis.	.13	.13	.13
No. 1 red oil, .905 spec. grav., 265 vis.	.14	.14	.14
Polar red oil, .903 spec. grav., 295 vis.	.15	.15	.15
Pale oil, "25" .899 spec. grav.	.13½	.13½	.13½
Pale oil, "28" spec. grav.	.09	.09	.09
Paraffin Wax:			
120-122 a.m.p., per lb.	.06⅛	.06⅛	.06⅛
125-127 a.m.p., per lb.	.06¼	.06¼	.06¼
130-132 a.m.p., per lb.	.06⅝	.06⅝	.06⅝
135-137 a.m.p., per lb.	.07½	.07½	.07½
Petrolatum, in bbls., carload lots, per lb.:			
Amber	.03	.03	.03
Light amber	.03¾	.03¾	.03¾
Cream	.06	.06	.06

†All lub prices in barrels.

LOS ANGELES EXPORT PRICES

	Sept. 15		Sept. 8		Sept. 1	
Kerosene water white	.05	.05½	.05	.05½	.05	.05½
U. S. Motor Gasoline, 54-56 437 end point	.08¾	.09¼	.08¾	.09¼	.10¾	.11

CRUDE OIL PRICES

Arkansas and North Louisiana

Caddo, 38° and above	$1.95
35° to 37.9°	1.85
32° to 34.9°	1.75
Below 32°	1.65
Homer, 35° and above	1.75
32° to 34.9°	1.65
31° to 32.9°	1.55
Below 31°	1.40
Haynesville, 33° and above	1.65
Below 33°	1.55
El Dorado, 33° and above	1.65
Below 33°	1.55
Bull Bayou, 38° and above	1.75
35° to 37.9°	1.60
32° to 34.9°	1.45
Cotton Valley	1.10
De Soto	1.80
Crichton	1.60
Bellevue	1.65
*Stephens, Ark.:	
Below 26°	1.20
26° and above	1.40

*Posted by Atlantic Oil Producing Co.

Smackover:

(Standard Oil Co. of Louisiana)

Below 24°	.85
24° to 24.9°	1.15
25° to 25.9°	1.20
26° to 26.9°	1.25
27° and above	1.30

(The Texas Co.)

Below 24°	.85
24° to 25.9	1.05
26° and above	1.35

(Atlantic Oil Producing Co.)

Below 23°	.90
23° to 23.9°	.95

Wyoming and Montana

Rock Creek (Wyo.)	1.75
Salt Creek:	
29° to 29.9°	1.23
30° to 30.9°	1.31
31° to 31.9°	1.39
32° to 32.9°	1.47
33° to 33.9°	1.55
34° to 34.9°	1.63
35° to 35.9°	1.71
36° to 36.9°	1.79
37° and above	1.87
Big Muddy	1.75
Mule Creek	1.25
Grass Creek (light)	1.90
Elk Basin	1.90
Lance Creek	1.90
Osage	1.90
Cat Creek (Mont.)	1.90
Sunburst (Mont.)	1.30
Lost Soldier	1.10
Greybull and Torchlight	1.90
Hamilton Dome	1.55
Hogback, N. Mex.	1.95
Artesia (N. Mex.)	1.45

Lost Soldier and Lander based on contracts.

Oklahoma, Kansas, North and East Central Texas

Prairie Oil & Gas Co. and other major purchasing companies, except as noted:

28° to 28.9°	1.15
29° to 29.9°	1.23
30° to 30.9°	1.31
31° to 31.9°	1.39
32° to 32.9°	1.47
33° to 33.9°	1.55
34° to 34.9°	1.63
35° to 35.9°	1.71
36° to 36.9°	1.79
37° to 37.9°	1.87
38° to 38.9°	1.95
39° to 39.9°	2.03
40° to 40.9°	2.11
41° to 41.9°	2.19
42° to 42.9°	2.27
43° to 43.9°	2.35
44° to 44.9°	2.43

***Humble Oil & Refining Co.**

(North Texas, Ranger, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran)

28° to 28.9°	1.35
29° to 29.9°	1.41
30° to 30.9°	1.47
31° to 31.9°	1.53
32° to 32.9°	1.59
33° to 33.9°	1.65
34° to 34.9°	1.71
35° to 35.9°	1.77
36° to 36.9°	1.83
37° to 37.9°	1.89
38° to 38.9°	1.95
39° to 39.9°	2.01
40° to 40.9°	2.07
41° to 41.9°	2.13
42° to 42.9°	2.19
43° to 43.9°	2.25
44° and above	2.31

Magnolia Petroleum Co.—

Below 28°	1.00
28° to 30.9°	1.35

Other grades same as Humble Oil & Refining Co. in Texas and Prairie Oil & Gas Co. in Oklahoma and Kansas.

Gypsy Oil Co.—

Bristow, Glenn Pool, Morris and Perryman:

25° to 25.9°	.91
26° to 26.9°	.99
27° to 27.9°	1.07

Other grades same as Prairie Oil & Gas Co.

*The Texas Co. pays Humble schedule in Texas and the Prairie Oil & Gas Co. schedule in Oklahoma.

California

14° to 19.9°	1.25
20° to 20.9°	1.27
21° to 21.9°	1.30
22° to 22.9°	1.33
23° to 23.9°	1.36
24° to 24.9°	1.40
25° to 25.9°	1.44
26° to 26.9°	1.48
27° to 27.9°	1.52
28° to 28.9°	1.56
29° to 29.9°	1.60
30° to 30.9°	1.64
31° to 31.9°	1.68
32° to 32.9°	1.72
33° to 33.9°	1.76
34° to 34.9°	1.80
35° and above	1.85

Rosecrans-Athens Field only:

Below 35.9° gravity, same as other fields.

36° to 36.9°	1.92
37° to 37.9°	2.00
38° to 38.9°	2.08
39° to 39.9°	2.16
40° to 40.9°	2.24
41° to 41.9°	2.32
42° and above	2.40

Gulf Coast

Grade A	1.50
Grade B	1.25
Luling (Magnolia)	1.40
Laredo (Magnolia Petroleum Co.)	.85
Lockhart (Magnolia)	2.25
Rockdale-Minerva (Milam County)	1.25
Callihan (Live Oak-McMullen)	2.05
Webb, Jim Hogg, Zapata	1.15
*High Island	1.20

*Posted by Sun Oil Co.

***Somerset**

Below 30°	1.25
30° to 32.9°	1.35
33° to 35.9°	1.80
36° to 38.9°	1.95
39° to 41.9°	2.10
42° and above	2.35

*Posted by Grayburg Oil Co.

Eastern States

Penna Grade Oil in New York Transit Lines	3.15
Bradford District Oil in National Transit Lines	3.15
Penna Grade Oil in National Transit Lines	3.05
Penna Grade Oil in Southwest Pa. Pipe Lines	3.05
Penna Grade Oil in Eureka Pipe Line Lines	3.00
Penna Grade Oil in Buckeye Pipe Lines	2.80
Cabell Grade Oil in Eureka Pipe Line Lines	2.10
Corning Grade Oil in Buckeye Pipe Line Lines	1.60
Somerset Medium Oil in Cumberland Pipe Line Lines	2.20
Somerset Light Oil in Cumberland Pipe Line Lines	2.35
Ragland Grade Oil in Cumberland Pipe Line Lines	1.10
Gaines	2.70
Lima	1.98
Wooster	2.00
Illinois	1.85

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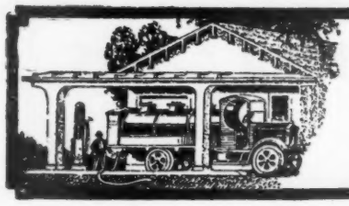

TANK WAGON MARKETS

Tank wagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns, Sept. 15.

ALL TANK WAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

STANDARD OIL CO. (INDIANA)
Main Service Station Price

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
Chicago Dist.— †Less than 100 gals.	16.0	18.0	...	11.0

Tank wagon prices on April 19, 1922; g. up 1½ c; May 8, g. up 1c; June 27, both up 1c; July 19, g. down 2c; k. down 1c; Oct. 10, g. down 2c; Oct. 21, g. down 1c; Feb. 5, 1923, g. up 1c; Feb. 20, g. up 1c; Aug 14, g. down 6.6c; Oct. 4, k. down 1½c; Nov. 19, g. down 1.4c; Dec. 20, g. up 2c; Jan. 12, 1924, g. up 2c; k. up 1c; Feb. 5, g. up 2c; k. 1c; July 18, g. down 1c; July 30, g. and k. down 1c; Sept. 12, g. down 2c; Jan. 23, 1925, g. up 1c; Jan. 26, g. up 1c; Jan. 31, g. up 1c; Feb. 12, g. up 2c; k. up 1c; April 19, g. down 1c; July 14, g. up 1c; Aug. 25, g. down 2c, k. down 1c; Sept. 1, g. down 1c.

Decatur, Ill.	13.0	15.0	...	11.5
East St. Louis	15.1	17.35	...	10.6
Joliet	16.4	18.4	...	11.7
Peoria	11.0	13.0	...	11.7
Quincy	16.2	18.2	...	11.3
Davenport, Ia.	18.5	20.5	2.0	11.9
Des Moines	17.5	19.5	2.0	11.9
Keokuk	18.5	20.5	2.0	11.9
Sioux City	18.0	20.0	2.0	11.5
Duluth, Minn.	19.5	21.5	2.0	12.6
Minneapolis	19.2	21.2	2.0	12.6
La Crosse, Wis.	19.2	21.2	2.0	12.1
Milwaukee	18.1	20.1	2.0	11.3
Madison	18.3	20.3	2.0	11.5
Detroit, Mich.	18.8	20.8	2.0	12.2
Grand Rapids	18.7	20.7	2.0	12.1
Saginaw	18.9	20.9	2.0	12.3
Evansville, Ind.	19.0	20.0	3.0	11.5
Fort Wayne	19.4	21.4	3.0	11.9
Indianapolis	19.2	21.2	3.0	11.7
South Bend	19.4	21.4	3.0	11.9
Fargo, N. D.	16.9	21.9	3.0	14.6
Huron, S. D.	17.0	19.0	3.0	13.1
Sioux Falls	19.5	21.5	3.0	12.6
*K. C. Mo.	15.9	17.9	3.0	10.3
*Springfield	18.8	20.8	3.0	11.2
*St. Louis	17.6	19.9	2.5	11.0
*St. Joseph	18.0	20.0	2.5	10.9
Wichita, Kan.	10.8	12.8	2.0	10.8
Bartlesville, Ok.	17.9	19.9	3.0	9.9

*State tax is 2c. Remainder is city tax. †Quantity price on more than 100 gallons, 15.0.

The following monthly rebate system is effective on tank wagon schedules throughout the territory of the Standard Oil Co. of Indiana: Over 750 gallons, ½ cent; over 2,000 gallons, ⅝ cent; over 3,000 gallons, 1 cent; over 6,000 gallons, 1¼ cents; over 10,000 gallons, 2 cents. If quantity bought during the year is equal to 12 times the monthly agreed purchases the discount will be paid or credited on the entire quantity less monthly payments. Service station customers will receive discount of 1 cent a gallon on purchases amounting to 200 gallons a month or 2,400 gallons a year; and 3 cents a gallon on 600 gallons a month or 7,200 gallons a year.

ATLANTIC COAST DISTRICT

Standard Oil Co. (New Jersey)

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
Newark, N. J.	15.5	17.5	..	12.5
Atlantic City	15.5	...	...	12.5
Annapolis, Md.	18.5	...	2.0	12.0
Baltimore	17.5	19.5	2.0	11.0
Cumberland	18.5	20.5	2.0	12.0
Washington	17.5	19.5	2.0	11.0
Norfolk, Va.	19.5	21.5	3.0	13.0
Petersburg	19.5	...	3.0	13.0
Danville	19.5	...	3.0	13.0
Richmond	19.5	21.5	3.0	13.0
Roanoke	19.5	21.5	3.0	13.0
Keyser, W. Va.	20.0	...	3.5	13.0
Charleston	19.5	21.5	3.5	13.0
Parkersburg	19.5	20.5	3.5	13.0
Wheeling	19.5	20.5	3.5	13.0
Charlotte, N. C.	20.5	22.5	4.0	14.0
Hickory	20.5	...	4.0	14.0
Mt. Airy	20.5	...	4.0	14.0
Salisbury	20.5	...	4.0	14.0
Charleston, S. C.	21.5	23.5	5.0	14.5
Columbia	21.5	24.5	5.0	14.5

SOUTHERN DISTRICT

Standard Oil Co. (Kentucky)

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
Atlanta, Ga.	18.0	21.0	3.0	13.0
Augusta	22.0	25.0	3.0	14.5
Macon	22.0	25.0	3.0	13.5
Savannah	20.0	23.0	3.0	13.0
Birmingham, Ala.	20.0	23.0	2.0	14.5
Mobile	19.0	22.0	2.0	11.0
*Montgomery	21.0	24.0	3.0	15.5
Clarksdale, Miss.	20.0	23.0	3.0	12.0
Jackson	20.0	23.0	3.0	9.0
Natchez	19.5	22.5	3.0	11.5
Vicksburg	19.5	22.5	3.0	11.5
Jacksonville, Fla.	21.0	24.0	4.0	13.0
Miami	23.0	26.0	4.0	14.5
Pensacola	21.0	24.0	4.0	13.5
Tampa	21.0	24.0	4.0	13.0
Lexington, Ky.	20.0	23.0	3.0	14.0
Covington	20.0	23.0	3.0	14.0
Louisville	20.0	23.0	3.0	14.0

*In addition to the State tax of 2 cents on gasoline, Montgomery has city tax of 1 cent on gasoline and ½ cent on kerosene.

PENNSYLVANIA-DELAWARE AND PART NEW ENGLAND

Atlantic Refining Co.

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
*Pittsburgh, Pa.	17.0	22.0	...	14.0
*Philadelphia	17.0	22.0	...	14.0
*Scranton	17.0	22.0	...	14.0
*Allentown	17.0	22.0	...	14.0
Altoona	17.0	22.0	...	14.0
*Erie	17.0	22.0	...	14.0
Dover, Del.	19.0	22.0	2.0	14.0
Wilmington	19.0	22.0	2.0	14.0
Springfield, Mass.	16.0	19.0	...	13.0
Worcester, Mass.	16.0	19.0	...	13.0
Boston	16.0	19.0	...	13.0
Providence, R. I.	17.0	20.0	1.0	13.0
Hartford, Conn.	18.0	21.0	2.0	12.0
New Haven, Conn.	18.0	21.0	2.0	12.0

*Pennsylvania tax of 2 cents is collected by the dealer and paid by him direct to the State.

SOUTHWESTERN DISTRICT

*Magnolia Petroleum Co.

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
Dallas, Tex.	17.0	19.0	1.0	12.0
Fort Worth	16.0	18.0	1.0	10.0
Houston	17.0	19.0	1.0	12.0
San Antonio	17.0	19.0	1.0	12.0
El Paso	18.0	21.0	1.0	13.0
Muskogee, Okla.	19.0	22.0	3.0	11.0
Oklahoma City	18.6	21.6	3.0	11.6
Tulsa	19.0	22.0	3.0	11.0
Ft. Smith, Ark.	18.0	21.0	4.0	12.0
Little Rock	16.5	19.5	4.0	10.0
Texarkana	16.0	20.0	1.0	12.9

*The following is the schedule of discounts on gasoline adopted by the Magnolia Petroleum Co. in Texas sales and the discounts are graded according to gallonage; Over 750 gallons a month, one-half cent; over 2,000 gallons, three-fourths cent; over 3,000 gallons, 1 cent; over 6,000 gallons, 1⅛ cents; over 10,000 gallons, 2 cents; over 9,000 gallons a year, one-half cent; over 24,000 gallons a year, three-fourths cent; over 36,000 gallons a year, 1 cent; over 72,000 gallons a year, 1⅛ cents; over 120,000 gallons a year, 2 cents.

The schedule on service station deliveries is: Over 200 gallons a month, 1 cent; over 600 gallons a month, 2 cents; over 2,400 gallons a year, 1 cent; over 7,200 gallons a year, 2 cents.

CENTRAL SOUTH DISTRICT

Standard Oil Co. (Louisiana)

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
*New Orleans	16.5	19.5	3.0	10.0
Alexandria	14.5	17.5	3.0	11.0
Baton Rouge	14.0	17.0	3.0	9.5
LaFayette	15.0	18.0	3.0	10.5
Lake Charles	15.0	18.0	3.0	11.0
Shreveport	14.0	17.0	3.0	10.0
Memphis, Tenn.	16.5	16.5	3.0	12.0
Chattanooga	17.0	20.0	3.0	12.5
Knoxville	18.0	21.0	3.0	13.0
Nashville	17.0	17.0	3.0	12.5
Bristol	18.5	18.5	3.0	12.5
Little Rock, Ark.	16.5	19.5	4.0	10.0

*Tax of 3 cents includes city tax of 1 cent.

NEW YORK AND PART OF NEW ENGLAND DISTRICT

Standard Oil Co. (New York)

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
Albany, N. Y.	18.0	...	..	13.0
*New York	17.0	....	...	13.0
Buffalo	18.0	...	..	12.0
Rochester	18.0	...	..	12.0
Syracuse	18.0	...	..	12.0
Boston, Mass.	16.0	....	....	....
Providence, R. I.	17.0	....	1.0	....
Augusta, Me.	21.0	...	3.0	13.0
Manchester, N. H.	20.0	...	2.0	13.0
Burlington, Vt.	20.0	...	2.0	13.0

*Price in steel barrels.

Note: Standard Oil Co. of New York does not generally quote service station price in its territory. In most cases the service station price is 2 or 3 cents higher than tank wagon price.

PACIFIC COAST DISTRICT

Standard Oil Co. (California)

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
San Francisco	17.0	20.0	2.0	15.5
Los Angeles	13.5	16.5	2.0	15.5
Fresno	17.5	20.5	3.0	19.5
Reno, Nev.	22.5	25.5	4.0	19.0
Portland, Ore.	18.0	21.0	3.0	16.5
Seattle, Wash.	17.0	20.0	3.0	16.5
Tacoma	17.0	20.0	3.0	16.5
Spokane	21.0	24.0	3.0	20.5
Phoenix, Ariz.	23.0	26.0	3.0	21.5

OHIO

Standard Oil Co. (Ohio)

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
All Ohio points	19.0	21.0	3.0	13.0

ROCKY MOUNTAIN DISTRICT

Continental Oil Co.

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
Casper, Wyo.	19.5	21.5	2.5	13.0
Cheyenne	21.0	23.0	2.5	14.5
Albuquerque, N. Mex.	23.5	26.5	3.0	16.5
Salt Lake, Utah.	23.0	25.0	3.5	18.0
Denver, Colo.	19.0	21.0	2.0	14.5
Pueblo	19.0	21.0	2.0	14.5
Butte, Mont.	21.0	21.0	2.0	16.0
Helena	23.0	25.0	2.0	17.0
Boise, Idaho	24.0	26.0	3.0	20.6

NEBRASKA

Standard Oil Co. (Nebraska)

	Gasoline Tank wagon	Service station	Incids tax of	Kero. Tank wagon
Omaha	17.5	19.5	2.0	11.5
Crawford	19.0	....	2.0	12.25
McCook	19.75	21.75	2.0	13.0
Norfolk	18.75	20.75	2.0	12.0
North Platte	19.75	21.75	2.0	12.75
Scotts Bluff	19.25	21.25	2.0	12.25

TANKWAGON PRICE CHANGES

September 1—Standard Oil Co. of Indiana reduced the tank wagon and service station price of gasoline one-half cent at Huron, S. D.

September 4—Magnolia Petroleum Co. reduced the service station price of gasoline 2 cents at Houston and 1 cent at San Antonio.

September 7—Standard Oil Co. of Indiana reduced the tank wagon and service station prices of gasoline 2 cents at Kansas City, Mo. The last previous change was on August 29, when the prices were cut 2 cents to 14.9 cents and 16.9 cents respectively.

September 8—Standard Oil Co. of Indiana reduced gasoline prices 2 cents at Peoria, Ill.

ALL OKLAHOMA REFINED PRODUCTS STRONG

(Continued from Page 20)

few sales were made at slightly higher marks. The 42-44 water white grade commanded 5½ cents although a few buyers were able to purchase at 5¼ cents. Distillates were not much changed in prices but were strong with the tendency toward the higher prices. The 36-38 could be sold easily for 3½ cents.

Fuel Oil and Gas Oil

Fuel oil and gas oil continued to gain strength with prices from 2½ to 5 cents higher Tuesday than a week ago. Very little fuel Tuesday was available under $1.05 although a few cars of low gravity product could be found at $1.02½. To get fairly prompt shipment on 24-26 buyers were forced to pay $1.07½. The 28-30 grade was quoted at $1.15 although little of that fuel is being made. Gas oil prices were ⅛ cent higher this week with the market on straw grades at 3⅛ to 3¼ cents.

Lubricants and Wax

Although still fairly firm, lubricants were not as active the past week as before. This is due largely to the fact that the lubricant season is over and demand will be on the decrease during the fall and winter. Cylinder stock prices are off 1 cent in view of this decreased demand. Wax is unchanged.

TO REOPEN FORT WORTH PLANT

FORT WORTH, Tex., Sept. 15.—Plans for reopening its refinery at Fort Worth are being made by the Pierce Oil Corp., according to William H. Cloverdale, chairman of the board of directors. Mr. Cloverdale, in company with other officials, is making an inspection of the southwestern properties of the corporation.

THOMAS POOL NOW CENTER OF INTEREST

(Continued from Page 121)

No. 4 of the Twin State Oil Co. and its north offset. Both were started at the same time, the Marland well being a rotary test and the Twin State a cable tool proposition. The former started producing from the Wilcox last Thursday topped at 4,015 feet, and the latter is just now being put on production at 2,560-74 feet.

The Layton sand (so-called by most geologists as it is thought to correspond to the Layton horizon in the Osage) is apparently unreliable as a marker in many respects. For instance, the Layton sand in the Marland No. 2 Thomas was only 65 feet higher than in the Twin State No. 2 Siler, although the Wilcox horizon is known to dip 288 feet between these two wells. From Marland's No. 2 Thomas to No. 1-A Thomas, the Layton structure rises 17 feet, while the Wilcox structure drops 58 feet. From Marland's No. 2 Thomas to the same company's No. 5 Thomas, in a northerly direction, the Layton structure dips only 180 feet, while the Wilcox is already known to be at least 400 feet lower in No. 5 than in No. 2.

The Selby Oil & Gas Co. passed out of the chat at 4,471 feet in its No. 1 Herbig and encountered water in the top of the Mississippi lime at 4,475 feet. This is 542 feet lower than the top of the Wilcox in Marland s No. 2 Thomas, considering surface elevations. The Gypsy Oil Co.'s No. 1 Herbig is already 533 feet lower structurally than the top of the Wilcox in the discovery well, although the Layton sand in the Gypsy well was only 253 feet lower.

To the southwest, the Layton dips 2,413 feet from Marland's No. 2 Thomas to the same company's No. 1 Turk, and to the west the structural dip of the Layton from the same well to Marland's No. 1 School Land 25 is 162 feet. Production will have to be found a long way down the flanks of the structure if the pool is to attain any appreciable size.

CREDIT MANAGERS TO MEET

The Association of Refinery Credit Managers will meet at the Hotel Mayo, Tulsa, September 29 and 30, and October 1, according to an announcement of W. J. Algiers, credit manager of the Transcontinental Oil Co. The main business to be brought to the attention of the credit men is the establishment of an information credit bureau for the use of refiners. This bureau will probably be under the supervision of the Western Petroleum Refineds Association.

The following committee has been appointed to arrange for the program for the Tulsa meeting:

M. D. Creel, Marland Refining Co., Ponca City; A. W. Hallman, Sun Co., Philadelphia, Pa.; W. N. Long, Galena Signal Oil Co., Houston, Texas, and G. E. Craid, Miller Petroleum Co., Kansas City.

CRUDE OIL PRICES

(Continued from Page 123)

Indiana	1.88
Princeton	1.87
Plymouth	1.40
Waterloo	1.00
Oil Springs, Canada	2.45
Petrolia, Canada	2.38
*Western Kentucky, 36° and above,	1.90
*Western Kentucky, 35° to 35.9°	1.80
*Western Kentucky 32.9° and below	1.70
Cumberland, Barren and Monroe Counties (Kentucky), (Paragon Development Co.)	2.35

*Prices for Warren, Allen, Hancock, Simpson and Ohio Counties by Indian Refining Co.

Mexican Crude

*Tuxpam (f.o.b. Mexican ports)	1.45
†Panuco (f.o.b. Mexican ports)	1.25
Tuxpam (New York)	2.00
Panuco (New York)	1.67

*Plus 33.00c tax. †20.00c tax.

CRUDE PRICE CHANGES

September 10— Producers & Refiners Corp. reduced the price of Lost Soldier, Wyo., crude 25 cents.

THE SINCLAIR trade-mark does more than identify oils of quality.

It symbolizes the ideals of our Company. It represents our ambition to co-operate with Sinclair dealers to attain mutual growth.

Sinclair dealers know that it also represents our obligation to maintain their prestige with a product as conscientious as their service.

We stay behind the obligation — and the trade mark guarantee: —

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SINCLAIR REFINING COMPANY

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SINCLAIR OILS

Ad No. 10

Production of Alcohols Increases

Standard of New Jersey Constantly Increasing Output of By-Product Obtained From Cracked Hydrocarbon Gases. A Superior Product

By L. M. Fanning

Representing a distinct advance in the practical application of petroleum science and opening up interesting possbilities as to future development of the by-product end of the oil business, the work of the specialty department of the Standard Oil Co. (N. J.) also comes definitely under the category of efficiency in refinery operation. One of the principal activities of the specialty plant, which is near the Bayway refinery of the company at Elizabeth, N. J., is in connection with the production of secondary alcohols.

Recognizing the importance of the work, the company about 2 years ago established the specialty plant as a separate department. T. R. Parker is the general manager and M. D. Mann, Jr., is the superintendent. Mr. Mann has been connected with the development of the present processes for secondary alcohols since the laboratory stages.

Construction work on the specialty plant began about two years ago at Bayway, and the present buildings and facilities were completed last year.

By arrangement between the Standard Oil Co. (N. J.), the owner of the patents relating to the manufacture of higher alcohols from cracked hydrocarbon gases, and the Doherty Research Co., the Empire Refineries, Inc., also last year completed and placed in operation a plant for the manufacture of these alcohols at Okmulgee, Okla. These plants are the first of their kind, so far as is known, and represent the first successful chemical utilization of petroleum gases for the making of secondary alcohols.

The present alcohol plant at Bayway is the growth of several years of experimentation and of development on the part of the development department of the company. It was preceded by other plants of experimental or semi-commercial character, but it was not until the present plant was in operation, representing an enlargement of the previous scale of manufacture, that the work was considered by the officials to be on a quantitatively commercial scale.

Development of Market

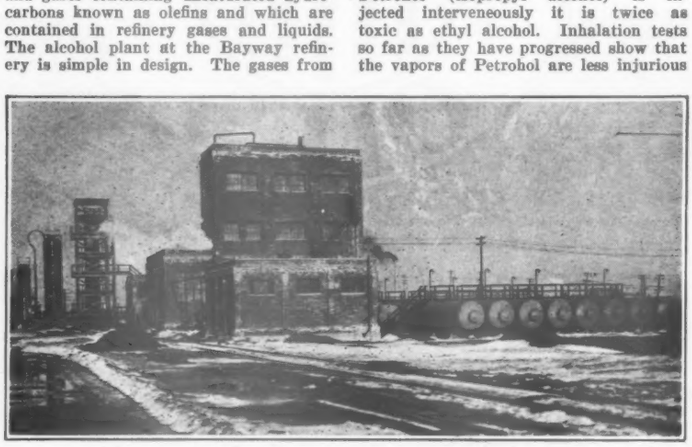
The principal limitations on production have to do with development of a market for the alcohols manufactured. This entails a considerable amount of pioneering educational work. This is being done by the Stanco Distributors, Inc. These alcohols can be used as a starting point for many chemicals. The alcohol produced in greatest quantity is isopropyl which is sold under the trade name of Petrohol.

Under the processes used the secondary alcohols are manufactured from liquids and gases containing unsaturated hydrocarbons known as olefins and which are contained in refinery gases and liquids. The alcohol plant at the Bayway refinery is simple in design. The gases from the refinery, both those from the cracking processes and from regular refinery operations constitute the source of the material from which these secondary alcohols are made, the particular gas or mixture of gases being selected according to the character of the product desired. These secondary alcohols have been known for a long time primarily as good chemical solvents, but up to the time of the development of the present processes they could be made only by rather complicated and consequently expensive chemical methods. It is possible to derive secondary alcohols by applying these processes not only to gases but to liquid products containing olefins.

With further reference to uses for isopropyl alcohol is the interesting work which has been carried on by investigators to determine its physiological properties and effects, its possible poisonous or irritating action on the skin and mucous membranes. Investigations which have been made indicate that when Petrohol (isopropyl alcohol) is injected interveneously it is twice as toxic as ethyl alcohol. Inhalation tests so far as they have progressed show that the vapors of Petrohol are less injurious than those of methyl or wood alcohol or ethyl alcohol. This would make possible widespread use of the product where workers are employing alcoholic solutions in confined spaces. Petrohol possesses healing properties similar to those of grain alcohol, so far as it has been tested.

The New Jersey company first began to manufacture secondary alcohols in 1919, and by the spring of 1920 had begun to market small quantities of its output. Since that time it has been increasing the commercial application of the processes and adding to production. The entrance of the company into this field began with its acquisition of certain rights under patents and applications for patents of the Melco Chemical Co. and the New Jersey Testing Laboratory in 1919.

The Standard Oil Co. (N. J.), controls the patents for the processes relating to the manufacture of higher alcohols from cracked hydrocarbons in this country, and practically all over the world, it is stated. Licenses have been granted in the case of the Doherty Research Co. but this was somewhat in the nature of a special arrangement brought about by the fact that both companies had been working along more or less parallel lines in the development of commercial alcohols from petroleum. The present status of these new by-products has been reached only after a great expenditure in original scientific research and experimentation. Before the Standard Oil Co. (N. J.), became interested in the processes, others had worked for many years on them.



Alcohol plant of the Standard Oil Co. of New Jersey at Bayway, N. J.

SULPHUR COMPANY GETS GAS

HOUSTON, Texas, Sept. 14. — The Houston Pipe Line Co., a subsidiary of the Houston Oil Co., commenced delivering gas to the plant of the Texas-Gulf Sulphur Co., at Gulf, Matagorda County, Friday. The gas comes from the company's wells in Refugio County, No. 1 Rook, with a capacity of 60,000,000 cubic feet per day being turned into the main. Work on the line eastward to Houston is being hurried forward under the supervision of Frank W. Kirk, general superintendent. Mr. Kirk delivered gas to the sulphur company several days ahead of the time scheduled.

PRAIRIE LOSES OIL BY FIRE

A 55,000-bbl. tank of the Prairie Pipe Line Co., in the Mexia, Texas, field was struck by lightning Saturday and its contents destroyed by fire. The tank was full of crude. This is the second 55,000-bbl. tank full of oil the Prairie has lost by fire recently, the other having been one at Argo Station near Neodesha, Kans. About 100,000 bbls. of oil, the property of the Prairie Oil & Gas Co. was lost in the two fires.

Engineer Comments on Committee of Eleven's Report

By H. W. Bell*

The brief of the report of the A. P. I. committe, as given in The Oil and Gas Journal of August 13, is very interesting and illuminating. Especially so is the tabulation by States of the oil production and reserves. Using these figures as a basis, there is shown below some of the important factors that were not included in the committee's published tabulation.

The recovery factor column no doubt shows more variation than is warranted and the report could have been improved by effecting a closer agreement of the assumed recoveries when conditions are similar. For instance, there is little, if any reason to believe that Texas, Louisiana or Arkansas will have a recovery factor twice as high as California or Wyoming. The figure for each case is, however, difficult to determine with a reasonable degree of accuracy.

The high recoveries assumed for the old and "hard rock" fields is cause for gratification if true.

The comparison of ultimate yields per acre shows California far in the lead with 34,000 bbls., and this with the minimum assumed recovery factor of 25 per cent. In a case like this the addition of only a few per cent to the recovery factor, through improved methods, will mean an enormous increase in ultimate recovery.

Of the large producers, Texas leads in proved undeveloped acreage and in the ratio of this to the producing area, but California's reserve is over twice that of Oklahoma, its nearest rival, and the same is practically true in the case of the original oil supply.

The well spacings for the different States seem well in accord with yields per acre and prices obtained.

*Engineer Minerals Division, Department of Conservation, Louisiana.

OIL PRODUCTION AND RESERVE FACTORS

State—	Total Production to date	Total reserve	Est. to be left after produced out by present methods	Total oil originally	Per cent recovery	Number Prod. wells	Proved acreage	Ult. yield per acre (present methods)	Acres per prod. well in Prod. area	Acres per producing well in proved area
California	2,124,066,000	2,139,937,000	13,792,159,000	17,056,212,000	25	11,380	125,532	34,000	5.5	11.0
Oklahoma	1,640,000,000	1,039,093,000	6,251,000,000	8,930,093,000	30	56,877	638,790	4,200	6.6	11.2
Texas	885,574,113	732,040,000	1,617,614,000	3,235,228,113	50	18,506	585,128	2,760	8.8	31.6
Kansas	345,000,000	314,501,000	1,539,000,000	2,198,501,000	30	18,318	315,000	1,777	7.6	17.2
Wyoming	198,470,000	295,550,000	1,482,060,000	1,976,080,000	25	2,480	43,242	11,420	14.5	17.4
Louisiana	316,589,212	133,870,000	450,459,000	900,918,212	50	3,527	55,885	8,060	14.2	15.8
Arkansas	117,028,923	122,150,000	239,179,000	478,357,923	50	3,024	40,170	5,950	11.9	13.3
Kentucky	69,673,000	78,974,000	446,000,000	594,647,000	25	12,737	337,792	440	19.9	26.5
New Mexico	91,218	12,900,000	26,977,000	51,968,518	25	7	14,500	889	91.4	2066.0
Colorado	11,410,000	45,462,000	179,616,000	239,488,000	25	71	5,745	10,420	35.2	81.0
Montana	9,631,000	9,900,000	58,593,000	78,124,000	25	204	2,880	6,780	11.7	14.1
New York	59,808,000	16,000,000	100,000,000	175,808,000	43.1	14,400	62,000	1,223	4.2	4.3
Pennsylvania	780,318,000	86,000,000	520,000,000	1,386,318,000	62.5	76,664	391,000	2,220	5.0	5.1
West Virginia	358,179,000	48,000,000	193,000,000	579,179,000	66.7	19,847	160,000	2,420	7.6	8.1
Ohio	506,529,000	120,000,000	209,000,000	835,529,000	75	39,050	295,000	2,120	7.6	7.6
Indiana	112,246,000	11,500,000	41,000,000	164,746,000	75	2,505	33,000	3,750	13.0	13.2
Illinois	357,157,000	112,000,000	235,000,000	704,157,000	66.7	16,731	136,000	3,450	7.4	8.1

Viscosimeter of Professor Jukovsky

Apparatus for Determining the Viscosity of Lubricating Oils Must Be Accurate and as Simple as Possible for Everyday Use

By J. Valentine

The viscosity of a lubricating oil is the most important part of its physical properties. The present methods of expressing the viscosity of oil by terms of commercial viscosities cause much trouble and confusion even among the men directly dealing with utility or suitability of different oils.

Petroleum chemists and technologists know very well that all apparatuses for viscosity determinations are either inaccurate or too complicated for ordinary every day laboratory use.

The committee (1) appointed by the A. P. I. to standardize the Saybolt Universal and Furol Viscosimeters reports that: (a) from a total of 26 laboratories reporting, 16 made a definite effort to keep their instruments in line with others, either by maintaining primary standards by returning tubes to G. M. Saybolt for checking, or by comparative work with other companies; (b) the viscosities reported on a certain oil by these various

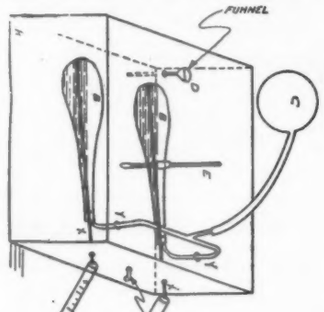


Figure 1. Apparatus of Professor Jukovsky for determining absolute viscosity.

laboratories varied from 200 to 223 seconds at 100 degrees Fahrenheit, eight laboratories checking with 1 per cent.

The desirability of expressing the viscosity of oil by its true or absolute viscosity was suggested by scientists and engineers at different times, but little has been done in that line. The determination of absolute viscosity is possible only with apparatuses, a prototype of which is the apparatus, or rather method of Poisseuille, or its modification, suggested by Ostwald. The manipulations with these apparatuses require much attention, calculations and, of course, time. The most accurate of them all is the apparatus of Prof. Petroff (Izv. St. Petersburg Technol Institute, 1886). The other accurate apparatus is that of English scientists—Thorpe and Rodger.

The late Professor N. E. Jukovsky, of Moscow University, offered a very simple apparatus for determination of absolute viscosity (2). With the aid of this apparatus is possible to draw very quickly a diagram of absolute viscosity of certain oil, if absolute viscosity of another fluid taken for comparison is known.

Apparatus Described

The apparatus consists of a copper box A (figure 1), in which two pearlike containers B and B¹ are placed. Stoppers are made from cautchouc and two glass tubes run through each of them; Y and Y¹ are bent, one end runs through to top-cover of the box and the other ends in the neck of the container. The other tubes X and X¹, are placed so that one end reaches the bottom of containers B and B¹ and the other end runs through the side of the box. The tubes X and X¹ are the most essential parts of all apparatus; they must be very carefully calibrated and must have the same diameter. For that purpose it would be advisable to make the tubes from the same thermometrical tube, which, when checked up with the mercury, will show the most constant diameter.

To the ends of the tubes X and X¹ two graduated cylinders Z and Z¹ are placed and on the ends of the tubes Y and Y¹ are attached by means of rubber tubes connected with the ball C by the aid of three-ended glass tubes.

At the cover of the box, besides the holes for the tubes Y and Y¹ are holes for the thermometer E and funnel D. At the right side of the box, besides the tubes X and X¹, a petcock is placed for regulating the t° of water.

As it was stated above, the operation of the apparatus is very simple; some liquid, of which the absolute viscosity is already well known, is placed in container B and some oil, of which the absolute viscosity is under question, is placed in container B¹. Then hot water is run through funnel D, the level of water and temperature is regulated by petcock F. When the desired temperature is reached, the ball C¹ is pressed and the air enters the containers B and B¹ above the level of the oil and with the equal pressure P pushes the oil out.

Theory Explained

The theory of the experiment is elementary. From the physics it is known (according to Poisseuille and Stocks) that the amount of liquid running through a capillary tube (to be deferred from hydrolics) in time T is determined by law of Poisseuille.

$$Q=\frac{\pi PD^4}{128\,LK}T \quad \ldots\ldots (1)$$

K—Coef. of absol. visc.
P—Excess of air pressure
D—Diameter of capillary tube
L—Length of tube
π=3,14159

If the container B is filled with oil, absolute viscosity of which is K, then that oil flowing from it in DT time will be:

$$DQ=\frac{\pi P D^4}{128LK}DT \quad \ldots\ldots (2)$$

If the container B is filled with oil, absolute viscosity of which is K¹, then that oil flowing from it in the same DT time will be:

$$DQ^1=\frac{\pi P D^4}{128\,LK^1}DT \quad \ldots (3)$$

Comparing (2) and (3):

$$K^1\,DQ^1=KDQ \quad \ldots\ldots (4)$$

that equation will be right in any moment of the experiment, even the pressure P will be changed all the time due to different pressure on the ball C, and diameter D and length of capillary tube L will vary, due to the temperature.

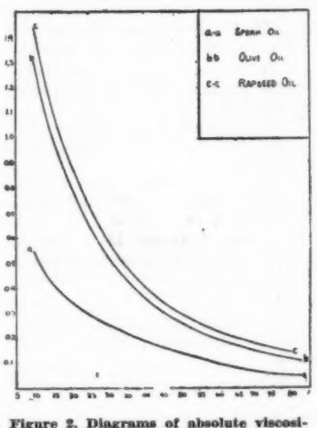


Figure 2. Diagrams of absolute viscosities of sperm oil, olive oil and rapseed oil.

(Of course, it is self-understood that force of inertia, compared with the force of its viscosity, is ignored).

By integration (4) we get:

$$KQ=K^1Q^1 \quad \ldots\ldots (5)$$

which is the basic equation, for Jukovsky viscosimeter that equation gives:

$$K=\frac{Q}{Q^1}K \quad \ldots\ldots (6)$$

Determine after observation of vertical

(1) Report of the committee on viscosity standards A. P. I., 1922-1924.

(2) Prof. L. S. Leibenson, Azerb. Nepht. Chos., October, 1924.

CALIFORNIA PRICES ARE WEAKER; REDUCTION IN CRUDE EXPECTED

By L. P. Stockman

LOS ANGELES, Cal., Sept. 12.—The price structure on the Pacific Coast was further weakened last week by a reduction of 2 cents in gasoline in the Los Angeles territory and, while the cut was localized, it may perhaps be extended later to include the entire Pacific Coast. The initial cut was made by the Pan American but this reduction was met within a short time by the Union, Shell, Associated and Richfield oil companies The Standard was quite reluctant to cut but was obliged to meet the new price of 16½ cents in Los Angeles and surrounding cities a day or two later. E. L. Doheny announced the cut of the Pan American and supplemented it with a short statement in which he called attention to the fact that the reduction of 2 cents in the price of gasoline from 18½ to 16½ cents is a more substantial reduction than is apparent from a mere consideration of the figures. It really means a reduction of 2 cents in the net profit to the refineries because the cost of manufacture, delivery to distributing stations, retail costs and state tax remain unchanged. Consequently the reduction of 2 cents may mean with some refineries and with some grades of oil a sacrifice of nearly 100 per cent of the profit. With the best appointed refinery and the most economical grade of crude secured at the present market price it means a sacrifice of more than 50 per cent of the profit.

The coming winter season is one of minimum consumption of motor fuel, during which period lower prices usually prevail in the Eastern States. This year the lower prices in the Eastern market have arrived earlier than usual because of considerable shipments of crude and refined oils from California. L. P. St. Clair, vice president of the Union Oil Co., in charge of sales and distribution, announced that the policy of the Union Oil Co. is to meet competition where and as it is found. He further stated that the present price reduction is entirely local and did not anticipate any change in the situation outside of Los Angeles, at least in the immediate future.

The action of the Pan-American in taking the initiative in price reduction was somewhat of a surprise as the Standard has usually taken the lead in such matters. The most notable exception to this rule occurred last spring when a price war was started which lasted a little over a week. At that time the Union precipitated matters by announcing a discount on coupon books, which was followed by other companies. This condition ended when the Richfield Oil Co., the leading independent, cut its price on sales at all its stations, the net result being the early elimination of the coupon book discount and the restoration of the old price of 18½, which has since prevailed. The Standard at that time made no change whatever but adhered to the price posted previously. C. W. Fuller, of the Richfield, who has just returned from a trip to the Atlantic Seaboard, anticipates further reductions during the winter.

The Standard slashed the price of fuel oil 30 cents a barrel on August 28, just a short time previous to the Pan-American's reduction in gasoline. This made the price of fuel oil $1.20 a barrel at El Segundo and San Pedro and $1.25 a barrel at Richmond on San Francisco Bay. This has brought about a rather peculiar condition, as the selling price of fuel oil at San Pedro is 5 cents a barrel less than the posted price for crude at the well ranging between 14 and 19.9 degrees in gravity. The Standard's cut in fuel oil, however, came as no great surprise as this commodity has been piling up at a rapid rate for a long time. The company evidently figured it cheaper to unload fuel oil at a reduction of 30 cents a barrel than continue to place it in storage. It is rather peculiar that low grade crude was not cut at the same time. The cut in fuel oil was attributed to competitive conditions existing throughout the State. This is indicated by the Standard's bid to furnish the Shipping Board with fuel oil at $1.00 per barrel, fuel oil selling in the open market at that time around $1.50 per barrel.

It is problematical just what move will be made next by California marketers and refiners but it is safe to say a cut in crude would be quite welcome to the many small refiners operating in Southern California, whose margin of profit has been reduced considerably by the cut in gasoline unaccompanied by any change in the posted price of crude. In addition to this handicap many independents are paying a bonus for crude ranging anywhere from 5 to 30 cents per barrel. The large companies can offset to some extent the loss occasioned through retail sales of fuel and gasoline in Southern California by their turnover at other points. A casual analysis, however, indicates that a reduction in crude oil can be anticipated within 60 days, together with a 2-cent cut in gasoline at other points outside of Los Angeles territory. At least this seems to be the logical outcome of the present highly competitive condition existing.

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105

cylinders Z and Z^1 equation:

$$\frac{Q}{Q^1}$$

we can find K^1, if K will be already known.

On the figure 2 are shown the diagramss of absolute viscosity of different oils: sperm oil (aa), olive oil (bb) and rapseed oil (cc). The diagrams were prepared by Prof. Petroff with special care, as average from observation on different qualities of those oils.

By using those diagrams it will be possible to find K for the different temperatures and after making experiments under different temperature it would be easy to find K^1, although under the different temperature, and make a diagram of absolute viscosity.

The absolute viscosity of water, which is well known, can be used for determination of less viscous oils.

RECENT PATENTS

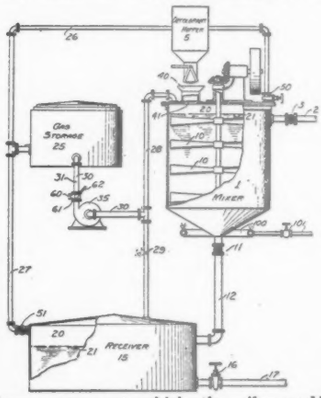
(Continued from Page 119)

Pa., assignors to Gulf Refining Co., Pittsburgh, Pa., a corporation of Texas. Filed July 17, 1924. Serial No. 726,629. Four claims. (Cl. 87—9.)

A thickened mineral oil containing a basic aluminum oleate, the molecular ratio of oleo acid to the aluminum in such oleate being 1:1.

1,551,909. Apparatus for Neutralizing or Decolorizing Oils. Paul W. Prutzman, Los Angeles, Calif., assignor to General Petroleum Corp., a Corporation of California. Filed April 19, 1921. Serial No. 462,671. One claim. (Cl. 196—147.)

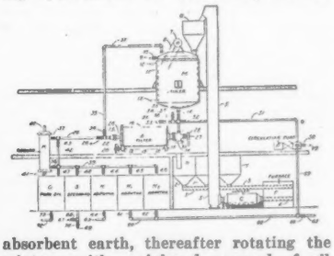
An apparatus for subjecting oils to the action of adsorbent materials, at



temperatures at which the oils would oxidize if exposed to the air, comprising: a container; means to heat said container; means for introducing the desired adsorbent material into said oil; agitating means for mixing the adsorbent with the oil; and means for excluding oxygen from said container.

1,552,072. Method of Treating Oil. Fred W. Manning, New York, N. Y., assignor to Manning Refining Equipment Corporation, a Corporation of Delaware. Filed June 16, 1922. Serial No. 568,789. 4 Claims. (Cl. 196—147.)

1. The method which comprises mixing hydrocarbon oil with finely divided



absorbent earth, thereafter rotating the mixture with peripheral removal of oil while under pressure to progressively build up a layer of earth from which the oil separates by passing therethrough, removing the soakage oil from the earth layer while in rotation, thereafter roasting the earth, and while still at elevated temperature bringing the earth into mixture with a fresh quantity of oil.

2. The method which comprises rotating an earth-retaining surface, bringing a mixture of oil and earth into contact with said surface while under pressure with peripheral removal of oil to effect collection of the adsorbent earth upon said surface and passage of the oil through the earth, thereafter passing fresh quantity of oil through said earth to displace soakage oil therein, removing said earth from said surface, mixing said fresh quantity of oil with a different mass of finely divided earth, and bringing said second mixture into contact with said rotating surface to effect separation of the oil from said second mixture.

Halliburton Co. Will Collect Royalty for Arkansas Cement Jobs

EL DORADO, Ark., Sept. 13.—The Daily News says a settlement by compromise of a $3,000,000 suit instituted in Federal court at Texarkana by the Halliburton Oil Well Cementing Co. of Los Angeles against the Standard Oil Co. of Louisiana, grants the plaintiff the virtual right to collect $75 on each oil and gas well drilled in the State, according to Halliburton officials here last night.

Erle P. Halliburton, president of the cementing company said the Standard has signed an agreement to pay the plaintiff $75 per well for the right to use the Perkins method of cementing casing in oil and gas wells. Since this is the only method used in any oil field in the world except in India, Halliburton said, it is believed that all south Arkansas oil operators will accept the contract offered the Standard of Louisiana.

Asked $3,000,000

The complaint of the Halliburton company, that the Standard of Louisiana as well as all other oil companies operating in this district were using the method of cementing covered by patent rights held by Erle P. Halliburton and the Perkins Oil Well Cementing Co. contrary to the regulations of the U. S. Patent Office, was made before the Federal Court February 14,1925. Halliburton alleged he was entitled to all profits accrued by the Standard from the wells that company had drilled in Arkansas and Louisiana, and placed his claim at the nominal figure of $3,000,000.

Halliburton, in his suit against the Standard, based his claims on U. S. Patent No. 1,011,484, granted to A. A. Perkins and Edward Double, both of Los Angeles, in 1911. Halliburton now shares with the grantees the rights of the patent, which specifies that until 1928 the owners shall have absolute control over the use of cement, where a plug is used with it, to shut off water in oil wells.

Checked Water Flow

The patent was taken out after Perkins, an old Pennsylvania operator, and Double, president of the Union Tool Co., had perfected the method to control a water flow encountered in wells drilled in the Midway, California Field. Cement had been used prior to that time, but had been merely dumped into the casing, and under the terrific water pressure it was found that loose cement in the bottom of the hole was ineffective. Perkins, according to his application for the patent, filed in 1909, invented the method of forcing the cement into the casing, through it and around the outside from the bottom, under pump pressure. A plug was used by Perkins as a barrier between the water from his pressure pump and the cement, and it was on the simple plug idea that the patent was granted.

The original idea, which is covered by the patent, has not been abandoned in cementing casing in wells drilled today, and it is this fact which was the basis of Halliburton's claims against the Standard. Under the simple Perkins method no extra machinery besides the pumps which are a part of every rotary drilling rig is required to cement a well, and every operator in the fields uses the principle. The cement is first poured into the hole, a plug made of wood just the size of the casing is placed immediately on top of the cement, and the pump pressure then forces the plug to the bottom of the hole, pushing the cement around the outside of the casing.

Basing his application for the patent on this idea alone, Perkins was given the rights which were later upheld in California and Oklahoma courts. On every well drilled in those States since 1911 he, or his co-operator, Halliburton, has collected a royalty, and when they discovered several years ago that Louisiana and Arkansas operators were using the principle without their authority, steps were taken which resulted in the Standard compromise.

SHREVEPORT PLANT FIRE

SHREVEPORT, La., Sept. 15.—Slight damage was caused at the plant of the Shreveport Producing & Refining Corp. when the "liquid" level line on the expansion chamber of a cracking still blew out, the escaping vapors catching fire.

LEGAL

NOTICE OF PUBLIC SALE OF OIL AND GAS LEASES ON CERTAIN PORTIONS OF THE BED OF THE ARKANSAS RIVER, AND ISLANDS THEREIN, SITUATED IN COWLEY COUNTY, KANSAS.

The Executive Council of the State of Kansas will receive sealed bids for the leasing of oil and gas rights on the hereinafter described portions of the bed of the Arkansas River, and islands lying therein, situated within the meander and defined lines of the said river as shown by the U. S. Government Survey of 1871 (being all lands except actual accretions lying between the lots abutting on said river as shown by said survey) from the west line of Section 28, Township 33, South, Range 3, East, extended across said river to the north and south center line of said section, extended across said river, to be known as Tract No. 1; and from the said center line of said section to the north line of the south half of the southeast quarter of Section 21, Township 33, South, Range 3, East extended across said river, to be known as Tract No. 2, said Tract No. 1 containing 45.7 acres, more or less, and Tract No. 2 containing 67.8 acres, more or less.

All leases will be made upon bids to be opened at the office of the Secretary of State, Topeka, Kansas, at the hour of 2 o'clock P. M., September 25, 1925, and said leases will be sold and such sales made according to rules and regulations adopted by the Executive Council for the governing of the offering of said leases for sale as hereinafter set forth.

Rules and Regulations

Rule 1. All bids must be on the conditions prescribed in the form lease to be furnished bidders for each tract advertised, and said bids to be filed with or delivered to the Secretary of the Executive Council on or before the hour of 2 o'clock P. M., of the day advertised for the opening of the bids.

Rule 2. If bids be sent by mail, same should be in an envelope inside the envelope addressed and marked thereon in plain writing (Bid for oil and gas lease).

Rule 3. All bidders will be required to deposit a certified check or bank draft on some solvent bank in the sum of One Thousand Dollars, payable to the Executive Council, to be held as earnest money binding the bidder to comply with the provisions of his bid and the entering into of a lease between the successful bidder and the proper officers for and on behalf of the State. One certified check or bank draft in said sum will entitle the bidder to bid on one or more tracts, said money to be returned upon the opening of the bid of the unsuccessful or rejected bidder, and to the successful bidder upon the entering into of a lease and payment of such bonus offered by said bidder.

Rule 4. The successful bidder will be required to give bond to be fixed and approved by the Executive Council for the faithful performance of the terms and conditions of the lease contract.

Rule 5. The royalty must be 12½ per cent of the total output of the said lands, and in addition such cash bonus as is offered. The lease form to provide the drilling required on each tract advertised.

Rule 6. Parties leasing under these rules will be required under the lease to provide a market for both oil and gas at the highest market price.

Rule 7. Certified copies of pipe line runs and shipments to be furnished monthly or on demand.

Rule 8. Accurate and reliable information concerning wells and their operation and management to be furnished on demand to the Executive Council or any one authorized to act for them.

Rule 9. The Executive Council reserves the right to reject any and all bids, and any combination in restraint of bidding will be deemed sufficient cause for rejection.

BEN S. PAULEN,
Governor and Chairman.

Attest:
FRANK J. RYAN,
Secretary of State and Secretary.

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Canfield Refining Co. Operating Smallest Refinery in Oklahoma Has Own Crude Supply and Marketing. Manufactures Lubricants

By C. O. Willson

The average independent refiner whose main business is concerned with the operation of his plant and the disposal of its products has many constantly changing problems to solve. To use an expression of one refiner, "if it isn't one thing it is another."

The thought back of this axiom is that conditions are never entirely satisfactory for the refiner. If the market for gasoline is high enough to indicate profits the demand for fuel oil, kerosene or some other product is usually disappointing.

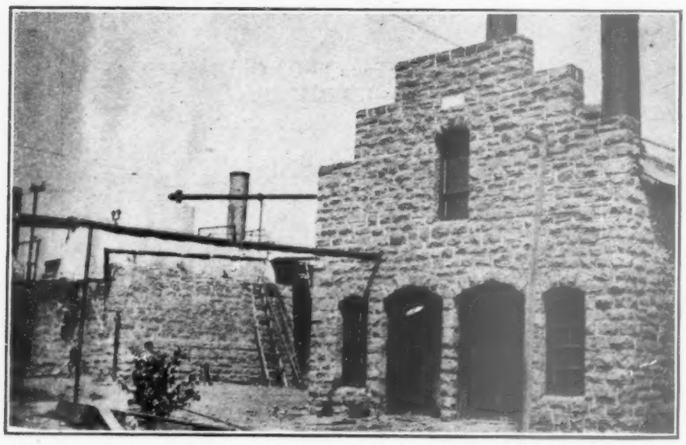
Often times a large part or the whole of his crude supply is cut off due to a decline in crude production of the particular field or the premium paying of a competitor. If fuel oil is burned, the market on the product often soars to the point where he wishes he had a more economical fuel for his boilers and stills. If he is using gas purchased from an outside source of supply he too often has the supply temporarily or permanently cut off.

These and many other apparently inevitable vicissitudes of the manufacturing end of the oil business do not prevent many refiners from thinking of and often discussing an Elysium in which all these discouraging factors of his business would be under his immediate control.

Ideal Conditions

In somewhat minature form many of these idealistic conditions are found at the Yale refinery of the Canfield Refining Co., which has been consistently operated for several years although it is one of the smallest plants in the Mid-Continent Field from the standpoint of the crude throughput of its stills.

Not only does a large part of the crude supply of the refinery come from wells owned by the company but these wells are located near the plant and at a surface level which permits the crude to flow by gravity from the wells to the crude storage tanks. At the present time it is necessary to pump the wells but when they were brought in they flowed direct into the pipe line leading to the refinery crude storage.



Boiler house and stills at Yale, Okla., refinery of the Canfield Refining Co. Stone used was taken from the refinery site.

Having reached the crude storage tanks the gravity scheme of operation does not cease. The crude stills of the refinery are lower than the storage tanks and when time permits the charge is allowed to flow by gravity into the stills. Operating on the batch method the products secured from the crude flow from the receiving house to the run down tanks and since the capacity of the plant is small the tank cars can be loaded direct from these tanks. The loading racks are several feet below the level of the run down tanks and the few tank cars used can be loaded in this manner.

Natural Advantages

Thus the refinery has taken advantage of elevation in installing its equipment and reduced operating costs to the extent of the saving in steam for pumps. Usually the operation is speeded up by using a pump to charge the stills, but even when this is done the elevation of the crude storage tanks is a benefit.

Two gas well located 300 or 400 feet from the stills furnish the gas for the stills and the boilers. The production of these wells has declined but the supply is still adequate for the refinery needs. The self-sufficiency of this organization is further indicated by the fact that the stone used in the construction of the buildings including the foundations for the stills and boilers was found on the plant site. Water wells not far from the gas wells furnish that essential in the operation of a refinery.

Although the average daily crude runs of this refinery are about 150 bbls. daily the company also manufactures lubricating oils and maintains a small compounding plant. The owners, in addition to operating the refinery, have on the same site an ice plant which furnishes the bulk of the ice required by the town of Yale and the surrounding oil fields.

Wax House Also

The building which houses the ice plant also provides the space for what in a more pretentious refinery would be termed the wax house. Part of the equipment used in the manufacture of the ice is utilized in the refrigeration necessary to separate the wax from the distillate. The wax distillate is chilled to the desired temperatures through an ammonia system and then passes to the presses of the conventional design.

To the rear of the combination wax and ice house is a frame filter house where the oils are brought to the desired specification as to color. In the same building is the compound house equipment. The lubricants are generally manufactured during the winter months when the demands on the ice plant are at a minimum. The wax distillate cut is secured from the crude throughout the year and stored during the summer months. The wax is melted and sold in tank cars to other refineries who secure the finished product. Enough of the neutral oils is stored to supply customers throughout the year.

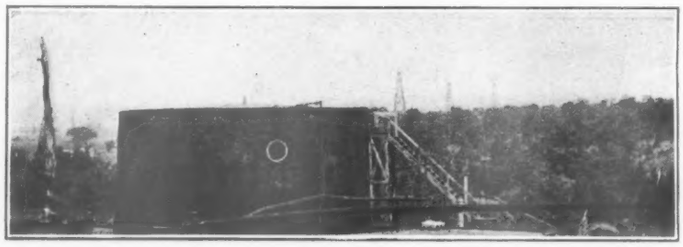
With the exception of the fuel oil a large part of the refinery is sold at tank wagon prices. In addition the company maintains two filling stations of its own in Yale. One important product for which relatively higher prices are obtained is the special painter's naphtha secured between the gasoline and kerosene cuts.

Industrial Significance

Due to the small capacity its operations obviously have no general industrial significance. It is described here because the Canfield operations are probably representative of what is being accomplished at several similar size plants in all parts of the country and indicates what other companies having small crude production might expect from local refineries. In Pennsylvania and adjoining areas there are several small concerns which have been able to show satisfactory profits from year to year practically since the beginning of the industry by refining and marketing their crude output.

The Canfield company has found that the refinery has given it a much better return on its crude output, especially during the periods of low crude prices which generally strike the Mid-Continent industry at least once a year. The actual per barrel cost of refining is probably slightly higher than several refineries in the same section with a much larger output if the same fuel cost were charged against the operations. The same would be true if the usual pipe line charges of 10 to 25 cents a barrel were added.

These important savings are obtained in the operating end. In the sales end, the bulk of the gasoline and kerosene as previously explained, is sold at tank wagon rather than tank car quotations. Thus the company obtains the profits of both the refinery and the bulk station, the latter oftentimes being more the former. The same situation applies to the lubricating plants. The cost per gallon of finished product is greater at the Canfield plant with its small capacity than at other Mid-Continent refineries manufacturing lubricants. But by selling in barrels and from the tank wagon the company receives more than double the usual f.o.b. refinery price in tank car lots for the same grade products.



View of field to the rear of the Canfield refinery from which the crude flows by gravity to refinery storage

The fact that the ice plant is operated in conjunction with the refinery also results in a saving. Part of the same equipment is used and the labor is also interchangeable.

The plant was started in 1913 with one still. G. W. Canfield, who with associates, laid out the townsite of Yale in 1902, is president of the company. A brother, C. G. Canfield, is superintendent of the plant.

IMPERIAL OIL GEOLOGIST TALKS OF OIL PROSPECTS IN ALBERTA

By Victor Lauriston

CHATHAM, Ont., Sept. 12.—At the recent convention of the Engineering Institute of Canada at Banff, Alta., Dr. O. B. Hopkins, chief geologist of Imperial Oil, Ltd., gave a paper on "Alberta Petroleum Geology." Dr. Hopkins has done a great deal of geological work in the Canadian West, as well as in the Colombian fields. In discussing the subject Dr. Hopkins said:

"The subject assigned to me for this talk is Alberta Petroleum Geology. I realize fully that the subject uppermost in the minds of the people of the province of Alberta is whether oil fields such as have been discovered in many parts of the world, the development of which has done so much to increase the material prosperity of the country in which they are situated, will be found here. While this is the question my company and many others have spent liberally to answer, the answer is still obscure, although some favorable results have been obtained during the past year. I refer to the bringing in of Royalite well No. 4."

Dr. Hopkins then proceeded to deal with the methods used in oil prospecting and their applicability to the problem found in Alberta.

"Following the slogan that oil, like gold, is where you find it, the early prospector hunted on the surface for indications of oil. Thus the early wells were located near oil seepages. While seepages of oil, like colors of gold, are interesting to the prospector, they are not found profitable in business. While some rich fields have been discovered near seepages by drilling, many fields discovered in the past have been miles from any surface indication. The California, Texas and Oklahoma fields were located in regions barren of oil seepages. The Dingman discovery was located on the basis of gas seepage nearby.

"Among the old methods of oil prospecting may be mentioned the ingenious inventor with one of the various types of divining rods, varying from the simple willow switch used so widely to locate water, to complicated apparatus based on the radioactivity of oil or some other property it does not possess.

"This type of oil 'expert' is an abso-

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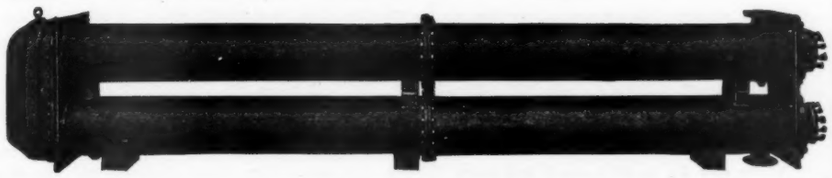

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White Star

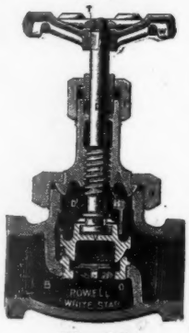

Fig. 102
Sizes ¼ to 3 in.

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lute fake. His financial success is due to the oil promotor who intends to sell stock whether there is oil or not. The faker does as he is told, receives his money, and gets out. With the information of the so-called expert clothed in high-sounding words, the promoter is able to sell his stock to the credulous public. But this practice is passing away, if not already entirely a chapter of the past. The modern oil man talks fluently of anticlines and synclines, of cretaceous and Tertiary, and other similar geological terms.

"The modern methods came with the application of the science of geology. After a number of fields were developed near seepage, it was found that producing fields followed lines of folding and that oil and gas most invariably were found on, or near, the crest of anticlines. I. C. White, working in West Virginia, deserves the credit for first observing and stating this relation. This was 30 years ago, when the oil business was in its infancy. The application of the principles of geology to oil prospecting began in real earnest in 1910 and has been gaining headway ever since.

Work of Geologist

"Today, more than a thousand geologists are intimately connected with the oil business in the States. The science of geology is new and new lines are being opened up constantly.

"The work of the geologist is to study the rock formations, their character, relation and thickness and their structural relations with special reference to the location and form of anticlines of suitable character, involving a series of rocks in which oil is suspected of being present and buried beneath the surface so that it can be reached by the drill.

"Various methods are resorted to to determine the structure in many oil producing areas where the rock formation is concealed by terrace and alluvial material. Shallow holes are sometimes drilled at close intervals to the underlying 'key' beds to determine their depth and nature. This method is expensive, although employed extensively.

"A more modern method is the use of the torsion balance which depends on the principle that the attraction of two bodies depends on their densities and their distance apart. With this delicately suspended weight, the attraction between the weight and the rocks beneath may be determined. If the pull is greater in one area than in a nearby one, it is safe to conclude that the rocks beneath are denser or closer to the surface.

"Anticlines are the result of the forces of nature bringing the rocks nearer the surface. Thus the torsion balance will determine the prescence of anticlines and indicate their approximate position. In many places, the anticlinal domes have cores of salt. The torsion balance indicates these deposits through the abnormally light gravitation at pull.

"During the war, seismographs, the earthquake machines, were used to determine the density of the underlying rocks for gun emplacements. Loose formations transmit the waves more slowly than hard rock formations. Seismographs are used now to determine the presence of anticlinal folds and fault planes where these are concealed beneath the surface.

"Two or more seismographs are placed at an equal distance from a point where an explosive is set off. One set of waves from the explosion will pass along the softer surface formation. Another will travel downward into the lower, harder formations, to return to the surface and be recorded on the seismographs. These last will be recorded first, and the formation between the point of disturbance and the seismograph first making a record will be the more dense rock formation. The surface indications will arrive after the under surface indications, providing that the under surface formation is not entirely of a sandy or loose nature.

"In Texas and other fields, this method has been used with success to determine the anticlinal folds of rock.

"Both these methods are costly and

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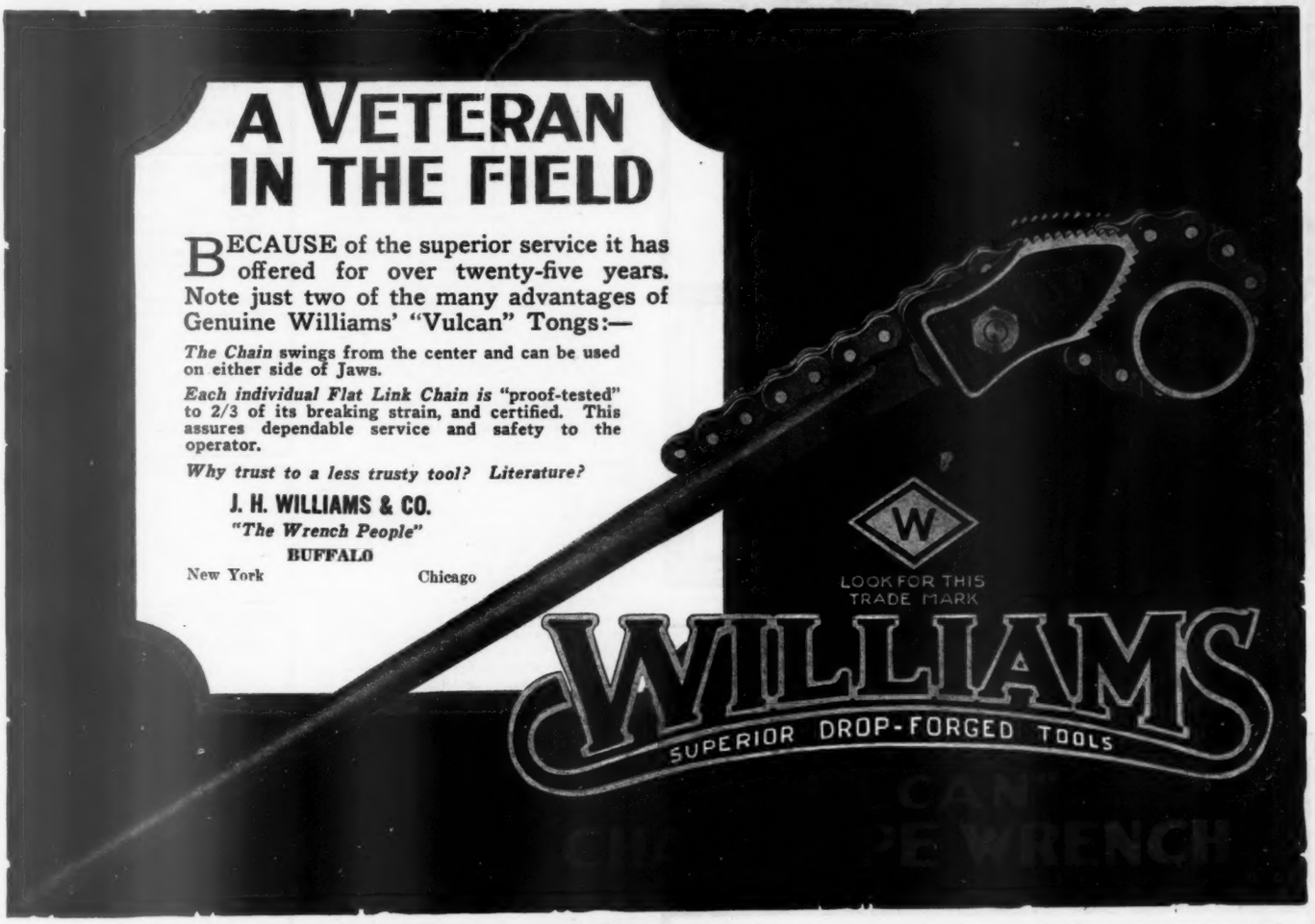
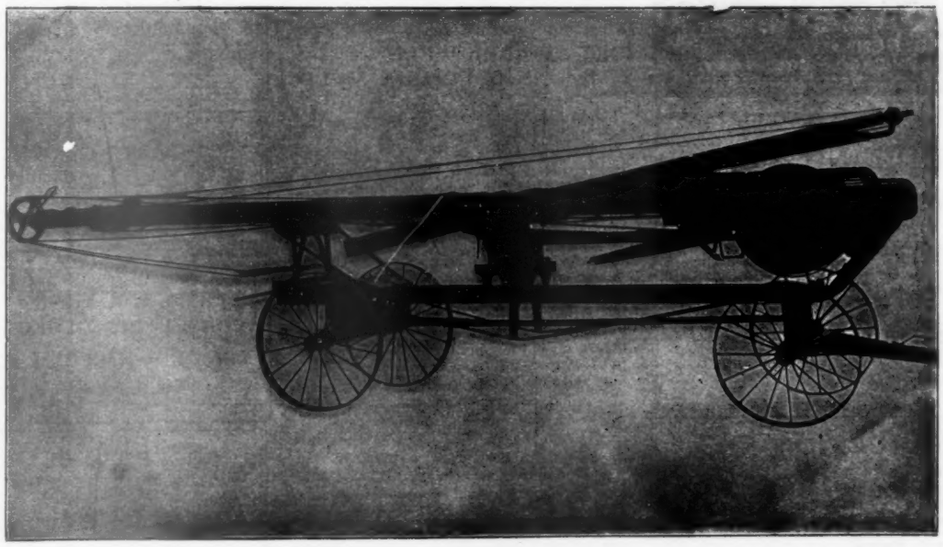


SAMSON OF OLD



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never used until a field has been discovered, and the surrounding areas are prospected to find more anticlines. When prospects warrant it, these methods will be used on the plains of Alberta.

"Many chemical analyses of water from oil field sands indicate a difference chemically from the other sands. This information is of value in searching for oil and in corelating sands encountered.

"Another important item of evidence in the search for oil is the degree of alteration of rocks, due to heat and pressure. The index of the amount of alteration is the quality of the coal. Undisturbed deposits of coal are called peat; we find lignites, bituminous and anthracite coals. The last product, the result of extreme heat and pressure, is graphite.

"Oil is never found near beds of peat or graphite, where there has either been no alteration of the rock formation by pressure or heat or else where the alteration has been extreme.

Carbon Content and Oil

"As the alteration progresses, the volatile content is driven out leaving a greater percentage of carbon. Commercially important oil fields have not been discovered where the fixed carbon content in the coal exceeds 68 per cent; the danger point is 66 per cent. The oil becomes lighter as the alteration of the rocks has been greater.

"Edmonton coals are found to range from 49 to 61 and average about 57 per cent fixed carbon. Thus the alteration of these rocks has not progressed too far to find oil of a fairly heavy grade in them. The coals of the Belly River formation showed a fixed carbon content ranging from 57 to 75 and averaging about 62 per cent. In most cases of this formation indications show that these areas lie on the borderland between the area where oil of a good grade in commrcial quantities may be found on one side and not on the other. Kootenay coals show an extreme range from 60 to 90 per cent with a general range from 75 to 80 per cent. The dead line has been passed here.

"To sum up the evidence from the study of coals, it is concluded that oil may be looked for in any part of the plains area (of Alberta). In the foothills belt, however, the rocks in the outer folds have been altered to the danger point, and while oil in commercial quantities may be looked for, it is likely to be abnormal in quality and limited in quantity.

"The rocks back of the foothills are too much altered to justify the hope that oil will be found in them."

GET 2,500-BBL WELL IN COLOMBIA FIELD

CHATHAM, Ont., Sept. 12.—A 2,500-bbl. well has been completed in Colombia by Tropical Oil Co., subsidiary of the International Petroleum Co., of Toronto.

The remarkably favorable results that have attended drilling operations in the Colombian fields at the beginning of the year have been beyond the expectations of those who were mapping out the campaign of development. An average of one well a week has been brought in since the beginning of January, and the average production per well has been 800 bbls. One 1,000-bbl. well was brought in several months ago. The latest 2,500-bbl. producer brings the potential output of the field to 37,000 bbls. daily, according to a conservative estimate.

Most of the wells brought in thus far have been on the Infantas structure. It has been quite remarkable that the outside wells have been equally as productive as those on the inside. The extent of the productive area has been somewhat surprising.

Development work is proceeding on other structures, and it is noteworthy there has been not a single dry hole since the commencement of operations.

It will be several months before the Andian National Corp.'s pipe line is completed, but potential production is already sufficiently large to take the entire capacity of the pipe line.

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Detailed Operations in Eastern Fields for Month of August

EASTERN FIELDS

Summary of Wells Completed

Field—	Comp.	Prod.	Dry	Gas
Allegany	29	50	0	0
Bradford	114	278	2	1
Middle Field	23	231	1	1
Venango-Clarion	46	76	4	5
Butler-Armstrong	19	34	6	6
Southwest Pennsylvania	17	344	7	5
West Virginia	115	627	18	51
Southeast Ohio	104	1,106	25	13
Total August	467	2,746	63	82
Total July	444	1,707	57	91
Difference	23	1,039	6	9

Summary of Rigs and Wells Drilling

Fields—	Rigs	Drg.	Ttl.
Allegany	16	16	32
Bradford	33	85	118
Middle Field	7	6	13
Venango-Clarion	4	24	28
Butler-Armstrong	8	24	32
Southwest Pennsylvania	10	34	44
West Virginia	67	144	211
Southeast Ohio	38	130	168
Total August 31	183	463	646
Total July 31	165	460	625
Difference	18	3	21

ALLEGHENY FIELD

WELLS COMPLETED

Bledsoe et al, Wm. Duke et al 1
Fee, McEwen et al 1
Fee, Empire, Ltd. 2
Fee, Empire, Ltd. 2
Fee, Empire, Ltd. et al 3
Fee, Albert Oil 8
Reid, Agt., First National Bank of Cuba No. 4 and Randall 3
Norton & Agt., Knights Creek Oil 1
Norton & Agt., Knights Creek Oil 1
Norton, Albert Oil 2
Fee, Empire, Ltd., and Breckenridge 1
Fee, Empire, Ltd. 1
Fee, Phillips & Howard 1
Fee, C. J. Reeland 1
Fee, Birtcil et al 1
Fee, R. J. Dermitt 1
Fee, R. J Dermitt 1
Fee, Root & Perry 1
Fee, L. A. Wilson 2
Wilson & Reynolds, J. C. Hyde et al. 2
Crandall, Wightman & Crandall 2
Fee, M. J. Crowley et al 4
Childs, Neal K. Wilson 1
Fee, Martin Bros. & Wasson 3
Ferrington, Hungerford et al 1
Kinley Oil, W. J. Weller et al 3
Fee, J. M. Hughes et al 2
Fee, Lavens Est. et al 2
Perkins, L. H. Lobaugh, Tr. 1
Fee, Clyde Jordan et al 2

Wells completed 29
Production 50

Bradford Field

Redfield, South Penn Oil 98 15
Weston Jr., Tr., South Penn Oil 91 1
Wilson, Wilson et al 8 1
Fee, South Penn Oil ..... water
Fee, M. C. Reidy 16 ..... water
Jones et al, J. H. Brahaney 7 2
Burns et al, E. Daly 6 4
Fee, J. V. Golden 22 2
Rasey, Lewis Emery 17 2
Rasey, Lewis Emery 18 2
Bingham, Brink & Brink 11 2
Fee, R. C. Landers et al 14 3
Park Est., E. A. Potter et al 29 3
Fee, Park & Hungiville 2 1
Franchot, Thos. T. Fox 14 2
Franchot, H. E. Greer 16 3
Fee, Hezlewood Oil 47 1
Fee, Dana & Dana 32 4
Francnot, Melvin & Towne 6 3
Francnot, John Jackson 17 2
Fee, G. W. Cooks Est. 14 1
Leasure, South Penn Oil 26
Griffith et al, C. S. Knabe, Tr. 2
Fee, A. W. Palmer 4
Fee, Moses Sullivan 1
Quintupie Oil, Jane Zane Est. 2
Bing, 22, Hazelwood Oil 35 1
Fee, W. C. Kennedy Co. 48 1
Fee, South Penn Oil 21 1
Bing., Associated Producers 153 2
Bing., Associated Producers 154 2
Fee, Hilliard & Dodge 16 2
Bing., Hazelwood Oil 179 2
Fee, J. J. & W. W. Bisett 3
Kennedy & Clarke, Phoenix Oil 157 water
Kennedy, Holding Oil Corp. 20 1
Bing. 138, Harris Oil 30 3
Bing. 426, Scofield & White 1
Bing. 408, South Penn Oil 11 2
Bing. 423, South Penn Oil 13 5
Bing. 410, South Penn Oil 32 5
Bing. 481, South Penn Oil 14 10
Bing. 439, South Penn Oil 84 5
Bing. 499, South Penn Oil ..... water
Bing. 533, South Penn Oil 74 2
Bing. 533, South Penn Oil 75 1
Bing. 439, South Penn Oil 86 2
Bing. 538, C. P. Byron Est. 29 1
Bing. et al, South Penn Oil 4 ..... gas
Bing. 590, Associated Producers 357 5
Bing. 582, Associated Producers 364 .. water
Bing. 590, P. A. Oakes & Sons 23 5
Lawton, Gallup, Elder et al 21 3
Lawton, Suhr, MacSweeney & Co. 87 ... 2
Lawton, Gallup, Elder et al 22 3
Lawton, Gallup, Elder et al 23 1
Bing. 388, C. L. Wann et al 48 2
Vincent, S. H. Elder et al 15 2
Bing. 400, J. E. Ward 17 1
Bing. 381, Wilson & Fitzgibbon 72 2
Bing. 430, Lane No. 1 et al 69 6
Mantz, L. J. Kinley et al 35 1
Bing. 380, Wilson & Fitzgibbon 73 2
Bing. 490, T. H. Kennedy No. 2 133 ... 2
Bing. 500, Daly & Healy 24 2
Bing. 491, Forest Oil No. 9 48 4
Bing. 423, C. W. Hennretta et al 17 water
Bing. 370, C. L. Wann et al 42 1
Bing. 370, C. L. Wann et al 43 1
Bing. 491, Forest Oil No. 9 49 2
Murphy, Forest Oil 2
Sill, Hope Oil 1
Garlock, Denwood Oil 2
Hodge, South Penn Oil 2
Bingham, H. B. Oil 1
Pratt, Pet. Rec. 3
Pet. Pet. Rec. 1
Pratt, Pet. Rec. 3
Ekas, R. C. Loyd 2
Germer, Linwood Oil 3
Chapin, Linwood Oil 2
Garlock, L. H. Smith & Sons 1
Fee, R. Landers 2
Lovell, Ostrander et al 1
Mehan, Zane Est. 2
Hayter, J. F. Magee 2
Jack, J. & H. M. Jack 1
Taylor, M. E. Jones 3
Bingham, H. Kennedy 2
Gibson, J. H. Kennedy 1
Taylor, South Penn Oil ..... dry
Whipple, South Penn Oil ..... dry
Welsh, Nesselson Bros. 2
Howard, Pressure Oil 3
Duke, Gridiron Oil 3
Bord en, T. B. Wilson 2
Borden, T. B. Wilson 2
Scio, C. A. Duke 4
Porter, Forest Oil 2
Porter, Forest Oil 3
Noble, Forest Oil 2
Irvine, C. E. Potter 2
Burns, A. E. Yahn 7
Burns, A. E. Yahn 3
Burns, E. M. Daly 3
Middaugh, A. L. L. M. Lily 3
Loop, C. B. Kervin 1
Kapp, T. H. Kervin, Jr. 2
Duke, Staley & Luke 3
Kenyon, J. Minnich 2
Gray, W. B. Miller 3
Shepard, South Penn Oil ..... water
Duke, M. L. Boyle 2
Cotton, T. O. Glen et al 3

Wells completed 144
Production 278
Dry 2
Gas 1
Water 7

Middle Field

Lot 3767, F. J. Moser 26 1
Lot 268, Pennsylvania Gas 913 ..... gas
Tidioute & Warren, A. E and W. C. Tompsett 66 ..... dry
Tidioute & Warren, A. E. & W. C. Tompsett 67 6
Griffin, L. F. Bisker 12 1
Beaver, Siggins & Helm 9 3
Osgood, Rembold & Co. 10 39
Lacy, F. E. Chapman 1
Rogers, W. N. O'Neil 1
Streich, Bright Bros. 1
Rogers, F. H. Trax 1
Pardee, Waid & Moore 4 50
Pardee, Waid & Moore 5 50
Pardee, Waid & Moore 6 75
Lanning, J. P. Eaton & Co. 31 1
Lanning, J. P. Eaton & Co. 32 1
Lanning, J. P. Eaton & Co. 33 3
Brown, J. P. Eaton & Co. 4 1
Knupp, B. W. Logan 1 1
Knupp, B. W. Logan 2 1
Knupp, B. W. Logan 2 1
Frost, Howard & Siggins 8 1
Frost, Howard & Siggins 9 1

Wells completed 23
Production 231
Dry 1
Gas 1

VENANGO-CLARION

Bissell, Hawn & Bonnett 6 4
Venango O. & L., Venango O. & L. 219 1
Venango O. & L., Venango O. & L. 220 6
Hoffman, Hoffman and Exchange Bank of Franklin 12 1
Cross, H. J. Hoffman 15 1
Porter, E. A. Burch et al 87 2
Ziegler, G. N. Hess & Co. 3 1
Ziegler, C. N. Hess & Co. 4 1
McCalmont, S. P. McCalmont 46 2
Blair, Reeves & Franklin Trust 43 1
Frampton O. & L., E. Schenburer 5 1
Kaverline, Joe Kaverline 23 1
Toy, United Natural Gas 1 ..... gas
Furnace Tract, J. F., Helena & J. E. McLaughlin 55 1
Call, L. T. Call 13 1
Beichner, Alum Rock Gas 5 1
Eisenman, Alum Rock Gas 1 ..... gas
Mitchell, F. W. Mitchell Est., 122 1
Murphy, Taylor & Torrey, L. J. Kirkwood 19 1
Johnstone, F. S. & H. A. Gates 6 10
McCalmont et al., C. & L. Roess Trust Est. 18 ..... dry
Paul & Simmons, Breene & Rhodes 38 1
Paul & Simmons, Breene & Rhodes 39 1
Paul & Simmons, Breene & Rhodes 40 1
Columbia, Brundred Oil 1
Witherup, Franklin Trust 45 1
Phipps, M., Phipps Sons 8 2
McFadden, Hovis, Porter et al 4 1
Stevenson, Midland Oil 42 1
Kerr, Grieff & Co. 2 3
King, F. King, 18 1
Beichner, Beichner 1 1

Clarion—

Coulter, S. R. Lewis et al 1 ..... dry
Beichner, Alum Rock Gas 3 3
O'Neill Bros., Alum Rock Gas 4 5
O'Neill Bros., D. & H. O'Neill 4 5
Wentling, V. Glass 3 1
Coulter, G. W. Coulter Oil & Gas 2 1
Jones, Jones Oil & Gas 3 ..... gas
Stewart, L. G. & I. L. Neely 2 10
Henry, Parker Drilling 1 1
McCleary, C. P. McCleary 1 ..... abd
Wilson, W. W. Wilson ..... gas
Smathers, United Natural Gas ..... gas
Smathers, Wallie Oil & Gas ..... dry
Porter, Wallie Oil & Gas ..... dry

Wells completed 46
Production 76
Dry 4
Gas 5
Abandoned 1

BUTLER-ARMSTRONG

McKinney, G. F. Hovis et al 4 1
Cumberland, Campbell & Sherwin 3 ... 1
Christy, F. N. Smith 1 ..... gas
Coffin, P. C. Bell et al 1 1
Hilliard, Carl Hilliard 1 ..... dry
Togert, Sherwin, Morrison et al 1 ..... gas
Stoner, Blain, Gibson et al 1 ..... gas
Donnelly, Bear Creek Oil 15
House, Mrs. A. E. Butler 2
Gortz, Texas Oil 1 ..... dry
Shannon, Standard Plate Glass 1 ..... dry
Boyle, Standard Plate Glass 1 ..... dry
Crawford, Starr & Co. 1 ..... dry
McCarren, Lang & Co. 4 6
Morrison heirs, Standard Plate Glass .. gas
Bruner, Rabbitt & Hilderbrand 1 ..... gas
McGinley, Ravenwood Oil 3 ..... gas
Shanor, M. B. Finnessy 16 18
Pyle, E. H. Pyle et al 5 ..... dry

Wells completed 19
Production 34
Dry 6
Gas 6

ALLEGANY FIELD

Rigs

Clark, L. E. Norton No. 2 et al.
Thornton, Albert Oil.
Reid, Agt., First National Bank of Cuba No. 4 and Randall.
Fee, Empire Gas & Fuel, Ltd.
Fee, Herrick No. 7 and Bliss.
Norton, First Trust and Richardson.
Fee, Empire Ltd. and Breckenridge.
Fee, Phillips & Howard.
Fee, C. J. Reeland.
Fee, L. W. Shaner et al.
Empire, Lt., Cuba National Bank No. 8.
Fee, Gilligan & Dermitt.
Fee, C. L. Childs.
Williams and Empire, Ltd., A. C. Allen et al
Fee, Martin Bros. & Wasson.

Wells Drilling

Barney & Groves, Atwood & Stebbins.
Barney & Groves, Atwood & Stebbins.
Fee, McEwen et al.
Fee, Empire, Ltd., et al.
Fee, Albert Oil.
Fee, F. L. Williams.
Fee, L. C. Whitford et al.
Fee, Turner Oil Corp.
Fee, McDonell heirs.
Fee, Lavebs Est. et al.
Perkins, L. H. Lobaugh, Tr.
Fee, A. C. A. Oil Corp.
Wetherby, R. J. Dermitt.
Fee, Clyde Jordan et al.
Fee, F. W. Forness et al.
Fee, State Bank of Bolivar.
Rigs, 16; wells drilling, 16; total 32.

BRADFORD FIELD

Rigs

Barry, Mary E. Barry et al.
Cotton, T. O. Glen et al.
Bing, D. L. Andrus et al.
Fee, E. Jack et al 21.
Fee, R. C. Landers et al 15.
Willetts Est., James W. Looker 7.
Franchot, Thos. T. Fox 14.
Franchot, H. E. Greer 16.
Drake, Mrs. Jos. T. Jones.
Fee, W. C. Kennedy Co. 50.
Bing, 22, Hazelwood Oil 34.
Fee, South Penn Oil 37.
Fee, South Penn Oil 30.
Bing, Associated Producers 156.
Bing, South Penn Oil 95.
Bing, South Penn Oil 96.
Fee, Roy E. Diament 10.
Associated Producers, Holding Oil 20.
Fee, Wm. C. Kennedy Co. 102.
Bing, 410 South Penn Oil 33.
Bing, 439, South Penn Oil 86.
Bing, 481, South Penn Oil 16.
Bing, 494, South Penn Oil 41.
Bing, 499, South Penn Oil.
Bing, 439, South Penn Oil 88.
Bing, 439, South Penn Oil 87.
Bing, 501, South Penn Oil 13.
Bing, 538, C. P. Byron Est. 30.
Bing, 590, Associated Producers 359.
Bing, 464, R. S. Pringle 20.
Bing, 370, C. L. Wann et al 44, 45.
Bing, 489, T. H. Kennedy, No. 2, 134.

Wells Drilling

Redfield, South Penn Oil 93.
Rounds & Lawrence, South Penn Oil 46.
Fee, South Penn Oil 44.
Fee, A. W. McCandless & Sons 7.
Fee, M. C. Reidy 17.
Burns et al, Bliss Oil 27.
Fee, South Penn Oil 12.
Rasey, Lewis Emery 19.
Fee, J. V. Golden 23.
Fee, Anna Jane VanTine 12.
Fee, Hungiville et al 8.
Franchot, F. M. Johnson & Son 19.
Franchot, L. S. Greer 3.
Armstrong et al, J. B. Jamison 6.
Fee, R. C. & V. Schermerhorn 21.
Fee, Hooker et al 4.
Franchot, Melvin & Towne 7.
Franchot, R. A. Delo et al 12.
Fee, Dana & Dana 33.
Griffith et al, C. S. Knabb.
Quintupie Oil, Jane Zan Est.
Fee, South Penn Oil.
Fee, Sabra J. George.
Bing, Hazelwood Oil 106.
Big, Hazelwood Oil 107.
Bing, Hazelwood Oil 109.
Fee, W. C. Kennedy Co. 49.
Fee, G. Gallagher 10.
Fee, Associated Producers 205.
Kennedy & Clarke, Phoenix Oil 158.
South Penn Oil, E. K. Kane 42.
Bing, Kennedy Co. No. 4, 54.
Bing, Evans et al 33.
Wilson, South Penn Oil 14.
Bing, 482, South Penn Oil 15.
Bing, 370, South Penn Oil 11.
Bing, 425, South Penn Oil 14.
Bing, 554, South Penn Oil 44.
Bing, 439, South Penn Oil 89.
Bing, 592, Associated Producers 349.
Bing, 582, Associated Producers 353.
Bing, 423, C. W. Henretta et al 18.
Bing, 491, Forest Oil 50, 51.
Bing, 540, Park & Bovaird 30.
Bing, 500, Daly & Healy 25.
Lawton, Suhr, MacSweeney & Co. 88.
Bing, 381, Wilson & Fitzgibbon 74.
Bing, 391, Geo. W. Bovaird et al 80.
Bing, 291, Howard & McCallum 87.
Bing, 400, J. E. Ward 18.
Murphy, Forest Oil.
Sill, Hope Oil.
Hodge, South Penn Oil.
Bingham, H. B. Oil.
Pratt, Pet. Rec. (three wells).
Ekas, R. C. Lloyd.
Germer, Linwood Oil.
Chapin, Linwood Oil.
Lovell, Ostrander et al.
Mehan, Zane Est.
Whipple, South Penn Oil.
Jack, J. & H. M. Jack.
Henry, Korner Bros.
Wooster, Korner Bros.
Taylor, Korner Bros.
Bingham, T. H. Kennedy.
Gibson, T. H. Kennedy.
Lincoln, L. H. Smith & Sons.
Welsh, Nesselson Bros.
Scio, C. A. Duke.
Porter Forest Oil (two wells).
Noble, Forest Oil.
Mervin, Potter Devore.
Burns, A. E. Yahn.
Middebaugh, A. I. & L. M. Lilly.
Kenyon, J. Minnich.
Borden, Jeutter Bros.
Bingham H. E. Camp Est. (two wells).
Bingham, J. L. Yerdon.
Wright, E. H. & R. Culbertson.
Rigs, 33; wells drilling, 85; total, 118.

MIDDLE FIELD

Rigs

Lot 3210, T. L. Kane, trustee 52.
Ulf, Fidelity Petroleum 1.
Pardee, Waid & Moore 8, 9.
Brown, J. P. Eaton & Co. 5.
Knupp, B. W. Logan 4.
Frost, Howard & Siggins 10.

Wells Drilling

Lot 426, Kane Oil 40.
Tidioute & Warren, A. E. & W. C. Tompsett 68.
Beaver, Siggins & Helm 10.
Rogers, F. H. Trax.
Homan, Knopf & Chapman.
Pardee, Waid & Moore 7.
Rigs, 7; wells drilling, 6; total 13.

VENANGO-CLARION

Rigs

Surrena, Franklin Trust 7.

Clarion—

O'Neil Bros., D. & H. O'Neil 5.
O'Neil Bros., Alum Rock Gas 5.
Baynham, Baynham & Edinger 10.

Wells Drilling

Moran, D. O. & G. R. Moran 56.
Venago O. & L., Venago Oil & Land 221.
Jacobs, S. P. McCalmont 13.
Oakes, Wm. Bunny et al 3.
Graham, Ellenberger, Stroup et al 3.
Blair, Reeves and Franklin Trust 44.
McCalmont, Kelley heirs & Hoffman 19.
Furnace Tract, J. F. Helena & J. E. McLaughlin 56.
Crowther, Crowther Bros. 55.
McCalmont, C. & L. Roess Trust Est. 19.
Button, J. B. Smithman 37.
Nicklin, S. Y. Ramage 62.
Paul & Simmons, Breene & Rhodes 41.
Witherup, Franklin Trust 46.
Edinger, Hovis, Porter et al 3.
Troutner, Rossman & Turner 6.
Stevenson, Midland Oil 43.

Clarion—

Hess, Alum Rock Gas 3.
Kribbs, Wenting et al 2.
Williams, V. C. Dale et al 2.
Snyder, Knight Bros. 1.
Jones, Jones Oil & Gas 4.
Keating & Breamer, Potts, Heeter & Edinger 4.
McCall, Vasey & McCall 5.
Rigs, 4; wells drilling, 24; total, 28.

BUTLER-ARMSTRONG

Rigs

Campbell, Mark W. Graham et al 6.
Boggs heirs, R. C. & W. V. Binkerd.
Griffith, E. C. Griffith.
Lutz heirs, Shoup & Co. 1.
Markle, Shoup & Co. 1.
Criner heirs, Joseph Berry et al 1.
Shaner & Belistein, Shaner & Co. 3.
Goehring, Wm. Pfeifer et al 3.

Wells Drilling

Barnhart, W. D. McCarrier et al 3.
Bell, T. P. Bell 2.
Hilliard, Carl Hilliard et al 2.
Ray, Sherwin Morrison et al 2.
Stoner, Blair, Gibson et al 2.
Jenkins, Johns Bros. et al.
Hays, Larkin, Jones et al 5.
May, Gettman & Co. 1.
Mershon, Mershon & Bachman 1.
Brewer, Heeter & Woods 1.
Turner heirs, Rodgers & Boyer 1.
Kramer, Mr. and Mrs. E. R. Kramer 1.
Bish, Bish & Co. 3.
Oesterling, Oesterling & Co. 1.
Pontius, Westerman & Pontius 4.
Ritzert Bros., Ritzert Bros. 1.
Painter, Lang & Co. 1.
Greenert, T. W. Phillips Gas & Oil 1.
Goehring, McClay Bros. 1.
Craig, J. A. Elliott 1.
Trees, Trees & Babcock 3.
Schauffer, A. & B. Oil 1.
Shanor, M. B. Finnessy 17.
Dambaugh, F. Hornstrom 1.
Rigs, 8; wells drilling, 24; total 32.

SOUTHWEST PENNSYLVANIA

WELLS COMPLETED

Washington County—

Thome, Robert Hayes & Co. 1 5
Quail Sisters, E. H. Tague & Co. 1 ... 1
Myers, James Lyke 3 2
McConnell hrs., Lewis & Co. 1 ..... dry
Hood, Coulter & Duncan 1 ..... gas

Allegheny County—

King, Walley & Hahn 1 ..... gas

Beaver County—

Caughey hrs., Natural Gas Corp. 1 ... 1
Bluem, Bruin O. & G. Co. 1 ..... dry

Greene County—

H. Fox, Peoples Gas Co. 1 ..... dry
Garard, J. L. Garard 26 ..... dry
Caseman, Hope C. & R. Co. 2 ..... gas
Ferguson, Mrs. L. & H. Co. 1 ..... dry
Hoskinson, Milliken & Co. 1 ..... gas
Rutan, N. G. Co. of W. Va. 2 335
Finck, Tague & Cummins 1 ..... dry
Phillips, Mfrs. L. & H. Co. 1 ..... dry
Reese, Elliott & Co. 1 ..... gas

Wells completed 17
Production 344
Dry 7
Gas 5

WASHINGTON COUNTY

Rigs

Wallace Bros., E. H. Tague & Co. 1
Bedillion, Day & Mumgard 1.

Wells Drilling
Deglman, E. I. Closs 1.
Haslett, Mfrs. L. & H. Co. 2.

ALLEGHENY COUNTY
Rigs
Wolf, J. C. Nock 3.
Bauerline hrs., Robinson & Co. 2.
Dean, Pinkerton & Co. 1.
Deets, McAvoy & Co. 1.
Wells Drilling
Straub, Amer. N. G. Co. 2.
Poff, Parker & Co. 3.
Wiser, Martin & Co. 1.
Nichol, S. D. Robinson 4.

BEAVER COUNTY
Wells Drilling
Caughey hrs., N. G. Corp. 2.
Tarkis, N. G. Corp. 1.
Dawson, L. A. Reed 2.

GREENE COUNTY
Rigs
Wade, Carnegie Gas Co. 1.
Bell, Clovis & Co. 1.
Caseman, Caseman O. & G. Co. 1.
Ray, Mfrs. L. & H. Co. 1.
Wells Drilling
South, Fred Garrison 1.
Williamson, Fred Garrison 1.
Folly, McDermitt Oil Co. 1.
Wise, Moore-Tex Oil Co. 1.
Fox, Peoples Gas Co. 1.
Toothman, Carnegie Gas Co. 1.
Cowell, Philadelphia Oil Co. 1.
Headlee So. P. O. Oil 2.
Stephens, Philadelphia Oil Co. 4.
Sycks, J. L. Garard 9.
Kent, Peoples Gas Co. 1.
Riggs, Boundy Brothers 1.
Behm, Carnegie Gas Co. 1.
Renner, Dun-Mar O & G. Co. 1.
Phillips, Snider & Co. 1.
Day, Carnegie Gas Co. 2.
Spragg, Carnegie Gas Co. 1.
Johnson, Carnegie Gas Co. 1.
McCullough, Carnegie Gas Co. 1.
Andrews, Consolidated O. & G. Co. 5.
C. Day, Consolidated O. & G. Co. 1.
Anderson, Consumers Gas Co. 1.
Wright, Mfrs. L. & H. Co. 7.
Closser, Mfrs. L. & H. Co. 10.
Pettit, Philadelphia Oil Co. 1.
Rigs, 10; wells drilling, 34; total 44

WEST VIRGINIA
Wells Completed

Lewis County—
Conner hrs., West Fork O. & G. Co. 1 .. dry
Rhodes, Hope Gas Co. 2 ..... gas
Rittenhouse, Carnegie Gas Co. 1 ..... gas
Harrison County—
Harbet, Hope Gas Co. 1. 5
Benedum, Salem Oil Co. 3 ..... gas
Swiger, Raccoon Gas Co. 1 ..... gas
Dawson, Hope Gas Co. 1 ..... gas
Marion County—
Michael, Carnegie Gas Co. 2 3
Monongalia County—
Six, Clovis & Co. 1 ..... gas
Tennant, So. P. O. Co. 1 ..... gas
Wetzel County—
Little, Johns Gas Co. 1 50
Holmes, Holmes Brothers 1 1
Morgan, W. Va. C. O. Co. 3 ..... dry
Hawker, Rosenbloom Bros. 1 ..... dry
Marshall County—
Conaway, Carnegie Gas Co. 5 ..... gas
Bonar, Decem Development Co. 4 ..... gas
Schenk, Mfrs. L. & H. Co. 3 ..... gas
Blake, Mfrs. L. & H. Co. 2 1
Higgins, Mfrs. L. & H. Co. 1 10
Rogerson, Wasmuth & Co. 22 3
Kemp, Hope Gas Co. 1 35
Richmond, Hope Gas Co. 1 ..... gas
Doddridge County—
Hufford, Carter Oil Co. 3 5
Rollins, Murphy Oil Co. 3 20
Maxwell, Phila. Oil Co. 2 ..... dry
L. Maxwell, Col. Carbon Co. 55 ..... gas
Netzer, S. H. Pigott 3 10
Hefling, C. H. Pigott 2 30
Burbridge, Maxwell & Henderson 1 4
Ahouse, George Ahouse 4 8
Freeman, Clifton O. & G. Co. 8 75
Smith, Carter Oil Co. 5 125
Ritchie County—
Pate, Carnegie Gas Co. 1 ..... gas
Lowther, D. C. Lynch 1 ..... dry
McGinnis, P. M. McGinnis 2 5
Ferrell, Ferell Farm Oil Co. 5 ..... dry
Cain, Del Rio O. Co. 2 1
Scott, Southern Oil Co. 1 ..... dry
Lowther, So. P. O. Co. 4 40
Pointer, R. L. Lambert 1 ..... gas
Pentz, The O. & G. Co. 1 ..... dry
Gilmer County—
Weaver hrs., Philadelphia Oil Co. 12 15
Ward, Hope C. & R. Co. 2 1
Conley, Hope C. & R. Co. 2 1
Wilson, Hope C. & R. Co. 1 ..... gas
Wirt County—
R. O. Tract, Roberts Bros. 38 1
Eagle, Graham O. & G. Co. 5 1
Donoho, W. C. Patterson 19 1
Wood County—
Drake, Drake Oil Co. 25 5
Minnier, Bennett & Co. 10 2
Newbanks, So. P. O. Co. 9 2
Volcanic Tract, Power Oil Co. 109 1
Volcanic Tract, Power Oil Co. 110 3
Pease, Dunfee & Cecil 1 ..... dry
Pleasants County—
Smith, Dinsmoor & Co. 10 3
McLaughlin, Creek Oil Co. 1 ..... dry
Wright, Hall & Co. 2 ..... dry
Watson, Walnut Run Oil Co. 10 3
Roane County—
Arnett, G. L. Cabot 1 ..... dry
Harless, G. L. Cabot 1 ..... gas
Davis, Heck Oil Co. 5 20
Warren, Heck Oil Co. 2 5
Calhoun County—
Bennett, Hope Gas Co. 2 ..... gas
Stump hrs., Bickle Bros. 5 ..... gas
Clay County—
Craig & Sons, E. C. B. Co. 2 ..... gas
Lincoln County—
Adkins, Roy & McComas 2 ..... gas
Smith, Transylvania Pet. Co. 1 ..... gas
Sweetland-Pridemore, Foote O. & G. 1 gas
Miller, Grant Gas Co. 1 ..... gas
Sweetland, David Fox 1 ..... gas
Sweetland, L. R. Sweetland 5 ..... gas
Sweetland, L. R. Sweetland 6 ..... gas
Vickers hrs., Col. G. & E. Co. 1 ..... gas
Meed, Maul Rock O. & G. Co. 1 ..... gas
Baker hrs., Baker Bros. 3 ..... gas
May, Roy & Osborne 1 ..... gas
Barrett, Foote O. & G. Co. 1 ..... gas
Putnam County—
Frazier, Kirtley & Co. 2 12
C. & O. R. R. of W., Kirtley & Co. 1 .. 13
C. & O. R. R. of W., Kirtley & Co. 2 .. 9
Pine lot, C. & D. Gas Co. 2 9
Paul, C. & D. Gas Co. 2 ..... dry
Meddings, C. & D. Gas Co. 1 ..... dry
Murray lot, J. Z. Trowbridge 1 ..... dry
Swindler lot, Anchor Oil Co. 1 7
Lee, Holt & Wolf 1 ..... dry
Pine lot, Wolver Oil Co. 2 8
Cabell County—
Jordan, Harshbarger O. & G. Co. 2 .. gas
Armstrong, Shipe & Co. 1 ..... gas
Mingo County—
Logan C. C. Co., Public Gas Corp. 5 10
Closterman est., Public Gas Corp. 9 .... gas
Kanawha County—
Updegraff, U. F. G. Co. 1 ..... gas
Pike hrs., Tampico O. & G. Co. 4 .... gas
Pike hrs., Tampico O. & G. Co. 5 ..... gas
Pike hrs., Tampico O. & G. Co. 6 ..... gas
Combs, U. F. G. Co. 1 ..... gas
Halstead, U. F. G. Co. 1 ..... gas
Cobb, U. F. G. Co. 1 ..... gas
Dodd, So. P. O. Co. 1 ..... gas
Veasey lot, Ohio F. Oil Co. 1 ..... gas
Veasey lot, Earle Cameron 1 ..... gas
Veasey lot, Mullins Gas Co. 1 ..... gas
Veasey lot, Veasey Fuel Co. 1 ..... gas
Nugent lot, C. G. Halstead 1 ..... gas
Ferrell lot, Finecastle O. & G. Co. 1 .. gas
Ferrell lot, G. W. Vanhorn 1 ..... gas
Boone County—
Williams Coal Co., Pure Oil Co. 211 ... 25
L. P. & R. Tract, Pure Oil Co. 25 30
Coal River M. Co., Owens Bottle & Machine Co. 24 ..... gas
Stollings, Carter Oil Co. 1 ..... gas
Logan County—
Yawkey-Freeman, So. P. O. Co. 12 .... dry
Yawkey-Freeman, So. P. O. Co. 15 .... dry
Guyan M. Co., So. P. O. Co. 1 ..... gas
Chambers, Wacatock O. & G. Co. 1 ... gas
Wayne County—
Barbour, Jack Dalton & Co. 1 ..... dry

Wells completed 115
Production 627
Dry 18
Gas 51

LEWIS COUNTY
Rig
Bott, Mud Lick O. & G. Co. 1.
Wells Drilling
Lawton, Roy R. Turner 2.
Cunningham, Mud Lick O. & G. Co. 1.
Davis, Carnegie Gas Co. 1.
West, Bish & Co. 1.
Simons, So. P. O. C. 1.
Livingston, W. E. Turner & Co. 1.

HARRISON COUNTY
Rig
Conner, Reserve Gas Co. 1.
Wells Drilling
Turner R. S. Monroe 4.
Nutter, Hope Gas Co. 3.
Williams, D. E. Ritter 1.
Smith Bros., Reserve Gas Co. 1.
McReynolds, Reserve Gas Co. 1.
Kester, B. Bolman 1.
Maxwell, Hope Gas Co. 1.
Tittroe, L. S. Harner 1.
Davis, L. S. Harner 1.

PRESTON COUNTY
Well Drilling
Gordon, Hope Gas Co. 1.

MARION COUNTY
Rig
Freeland, Owens, B. & M. Co. 1.
Wells Drilling
Fleming hrs., Morgantown O. & G. Co. 1.
Snyder, Clinton O. & G. Co. 1.
Miller-Tennant, So. P. O. Co. 1.
Beaty, So. P. O. Co. 19.
Davis, Owens B. & M. Co. 1.
Ballah, Owens B. & M. Co. 1
Meser, Tennant & Co. 1.
Amons, So. P. O. Co. 3.

MONONGALIA COUNTY
Wells Drilling
White, Mfrs. L. & H. Co. 3.
Tennant, Mfrs. L. & H. Co. 1.
Youst, Mfrs. L. & H. Co. 1.
Tennant, So. P. O. Co. 11.
Hill, Hope Gas Co. 1.
Varner hrs., Dun Mar O. & G. Co. 17.
Varner hrs., Dun Bar O. & G. Co. 14.
Wilson, So. P. O. Co. 3.

WETZEL AND TYLER COUNTIES
Rigs
Antill, Johns Gas Co. 5.
Aberigg, Carnegie Gas Co. 6.
Howe, Carnegie Gas Co. 1.
Ott, Carnegie Gas Co. 1.
Riter, Hope C. & R. Co. 4.
Eddy, McIntyre Bros. 1.
Milliken hrs., Orndoff & Co. 2.
Morrow, Correll & Co. 1.
McGinnis, H. L. Lambert 8.
Wells Drilling
Aberigg, Carnegie Gas Co. 7.
Bissett hrs, Carnegie Gas Co. 1.
Riter, Hope C. & R. Co. 2.
Newland, White & Casper 1.
Parker hrs., Parker Farm Oil Co. 2.
A. Parker, Sugar Camp Oil Co. 3.
Allen, A. O. D. Co. 4.
Dillon, Carter Oil Co. 1.
Mason, Wiser Oil Co. 1.
Yeater, Hope Gas Co. 1.
Williamson, D. E. Sanders 7.
Russell, Carter Oil Co. 40.
Robinson, Hope Gas Co. 1.
Hugus hrs., Carter Oil Co. 1.
Stewart, Albert Neeley 1.
Galloway, A. S. McCullough 1.
Mace, Carnegie Gas Co. 1.
Riter, Mfrs. L. & H. Co. 1.
Williams hrs., Shrader & Co. 1.

MARSHALL COUNTY
Rigs
Keller, Mfrs. L. & H. Co. 1.
Donar, Decem Development Co. 5.
Fry, Mfrs. L. & H. Co. 1.
Rulong, Mfrs. L. & H. Co. 1.
Myers, Mfrs. L. & H. Co. 1.
Wells Drilling
McCuskey hrs., Waynesburg Gas Co. 1.
Markey, Decem Development Co. 6.
Otto, Otto Oil Co. 1.
Stern, Hope Gas Co. 1.
Burge, Mfrs. L. & H. Co. 2.
McCracken, P. O. M. & B. Co. 1.

DODDRIDGE COUNTY
Rigs
Leeson, Carter Oil Co. 2.
Williams, Hope C. & R. Co. 7.
Rollins, Murphy Oil Co. 8.
Netzer, C. H. Pigott 4.
Heflin, local parties 1.
Burbridge, Gribble & Co. 2.
Kelly, Trainer & Travis 2.
Ash, Keystone Oil Co. 1.
McKinney, Maxwell & Co. 1.
Wells Drilling
Hudkins, I. O. & G. P. Co. 13.
Ross, I. O. & G. P. Co. 2.
Oerine, Phila. Oil Co. 3.
Kelly hrs., Raccoon Oil Co. 4.
Ash, Carter Oil Co. 2.
Hudson, hrs., Continental O. & G. Co. 3.
Freeman, Clifton O. & G. Co. 7.
Dickey, A. Wilcox & Co. 1.

RITCHIE COUNTY
Rigs
Fleming, Carnegie Gas Co. 3.
W. Va. tract, Whitewood Oil Co. 29.
Mason, P. H. McDonough 1.
Donnelly, E. E. Pope 1.
Maxwell, Lucky Day O. & G. Co. 1.
Hartman, Hope C. & R. Co. 1.
Jamison, D. French & Co. 1.
Wells Drilling
Conrad, Braden & Britton 1.
Prichard, R. Elder 1.
Howell, Moore Oil Co. 1.
Rector, Rector & Co. 2.
Jonas, Coss O. & G. Co. 3.
Kemp, E. E. Poe 2.
Lanager, Hops C. & R. Co. 1.
Haught, So. P. O. Co. 1.
McCosh hrs., Wilson & Co. 1.
Wilson hrs., Chemical Oil Co. 3.
Dye, Hope C. & R. Co. 1.
Kennedy, Griffin Prod. Co. 37.
Cunningham, Leroy Oil Co. 2.
Deem, J. F. Deem 1.
Conaway-Patton, Mellon Oil Co. 3.
Payne, D. French & Co. 1.

GILMER COUNTY
Rigs
Tierney, James Tierney 3.
Richards, Chemical Oil Co. 9.
McClain, Satterfield & Co. 1.
Stump, Hope Gas Co. 1.
Curry, Ohio F. O. Co. 1.
Walters hrs., McIntosh & Miller 4.
Wells Drilling
Minney, Hope C. & R. Co. 1.

WIRT COUNTY
Wells Drilling
Donoho, W. C. Patterson 20.
Young, Richardson & Co. 1.

WOOD COUNTY
Rigs
Dotson, Bowser, Mallory & Co. 2.
Pope, E. E. Poe 2.
King, So. P. O. Co. 10.
Wells Drilling
Drain hrs., Henderson Oil Co. 9.
Elliott, Crumley Oil Co. 8.
Devaugn, unknown 1.
Grant, So. P. O. Co. 16.

PLEASANTS COUNTY
Rigs
Bills, Gallaher & Co. 1.
Delong, Neeley Oil Co. 1.
Dunn, Hope C. & R. Co. 1.
Lamp, Neeley & Co. 1.
Riggs, Amer, O. D. Co. 1.
Wells Drilling
Corbitt, Dresser Oil Co. 9.
Wilson, Wiser Oil Co. 1.

ROANE COUNTY
Rig
Larch, Ohio F. O. Co. 19.
Wells Drilling
Meadows hrs., Carter Oil Co. 1.
Epling, Carter Oil Co. 1.
Hanger, McIntosh & Miller 1.
Carson, Heck Oil Co. 1.

CALHOUN COUNTY
Rig
Pettit, Thomas Crowley 1.
Wells Drilling
Bell, Hope C. & R. Co. 1.
McCoy, M. F. Crowley 1.
Scott, G. L. Cabot 1.
Bourne, Hope C. & R. Co. 2.

JACKSON COUNTY
Rig
Battis, Ohio Fuel Oil Co. 1.
Well Drilling
McCoy, Henderson Oil Co. 1.

CLAY COUNTY
Rigs
Caston, V. G. & O. Co. 5.
Stockley, South Penn Oil Co. 3.
Caston, Ohio F. O. Co. 3.
Connell hrs., Chalmers O. & G. Co. 6.
Casto, V. G. O. & G. Co. 4, 5.
Wells Drilling
Casto, Ohio F. O. Co. 2.
Stockley, So. P. O. Co. 1, 2.

LINCOLN COUNTY
Rigs
Adkins, Orland O. & G. Co. 3.
Roberts, Col. G. & E. Co. 1.
McCallister, Grant Gas Co. 1.
Stowers, Carter Oil Co. 1.
Wells Drilling
Miller, Grant Gas Co. 2.
Miller, Cambridge Gas Co. 1.
Black, Foote O. & G. Co. 1.
Roberts, Foote O. & G. Co. 1.
May, Roy & Osborne 2.
Spears, Carter Oil Co. 1.
Linville, Coy, G. & E. Co. 1.

PUTNAM COUNTY
Rigs
Frazier, Kirtley & Co. 3.
Swindler lot, Anchor Oil Co. 2.
Wells Drilling
Davis lot, Kirtley & Co. 2.
Eggleston, C. & D. Gas Co. 1.
Alexander, A. J. Dalton & Co. 1.
Hanley, Ohio Fuel Oil Co. 1.

CABELL COUNTY
Wells Drilling
Kilgore, Harshbarger O. & G. Co. 7.
McCoy, Aetna O. & G. Co. 1.
Swann hrs., Commercial Gas Co. 1.

MINGO COUNTY
Rig
Closterman est., Public Gas Corp. 10.
Wells Drilling
Neighbert hrs., Public Gas Corp. 6.
Tucker Coal Co., Pure Oil Co. 2.

KANAWHA COUNTY
Rigs
Alford, Tamico O. & G. Co. 1.
Perry, U. O. G. Co. 1.
Dodd, So. P. O. Co. 1.
Roane Land Co., Allegheny O. & G. Co. 2.
Wells Drilling
Crawford, Superior Gas Co. 1.
Canterbury, U. F. G. Co. 1.
Dodd, So. P. O. Co. 1.
Vickers, Columbia Carbon Co. 7, 10.
Fogarty, Cart & Co. 1.
Bird hrs., Buff Lick O. & G. Co. 1.
P. C. T. lot, U. F. G. Co. 2, 3.
Ward hrs., Cabin C'k Gas Co. 54, 55.
Baillie, So. P. O. Co. 5.
Pritchard, So. P. O. Co. 1.

BOONE COUNTY
Rig
Linville, Owens B. & M. Co. 1.
Wells Drilling
Williams Coal Co., Pure Oil Co. 213.
L. P. & R. Co., Pure Oil Co. 6, 17.
Lenning hrs., Owens B. & M. Co. 1.
Cassingham, Owens B. & M. Co. 9.
Perry, Owens B. & M. Co. 2.
Yawkey-Freeman, So. P. O. Co. 18, 19.

LOGAN COUNTY
Rig
Dingess Run C. Co., Wacotock O. & G. Co. 7.
Wells Drilling
Cole-Crane, Zonheimer & Gibbs 3.
Ferguson hrs., Westover O. & G. Co. 10.
Rigs, 67; wells drilling, 144; total, 211.

SOUTHEASTERN OHIO
Wells Completed

Monroe County—
Holtsclaw, Cooper & Ward 1 ..... dry
Perry County—
Purvis, Carter Oil Co. 5 10
Gardner-Ellis, Perry Pet. Co. 4 128
Vansickle, Carter Oil Co. 1 2
Burgess, Flint Ridge O. & G. Co. 1 ... dry
Hocking County—
O'Donnell, O. F. S. Co. 1 50
Stone, Gordon Oil Co. 4 10
Lowe, Dodge Oil & Gas Co. 1 5
Starr, Kuechick O. & G. Co. 1 ..... dry
Thomas, Griffin Prod. Co. 5 ..... gas
Nutter, Oldtown O. & G. Co. 1 ..... gas
S. Nutter, Oldtown O. & G. Co. 1 ..... gas
H. V. P. Co., Chartiers Oil Co. 195 ... 15
Squier, Cobb & Bradley 13 50
Sunday C'k C Co., Sunday C'k C. Co. 125 5
Nat. Fireproof Co., Evans O. & G. Co. 4 dry
Schaal, O. F. S. P. Co. 1. ..... dry
Holmes County—
Martin, Empire F. & G. Co. 1 ..... dry
Davenport, Empire F. G. Co. 1 ..... gas
Bell, Ohio F. G. Co. 1 20
Sterling, East Ohio Gas Co. 2 25
Kendall, East Ohio Gas Co. 2 ..... gas
Coshocton County—
Norris, Leonard O. & G. Co. 2 20
Fair, Ohio Oil Co. 13 25
Licking County—
Crawford, M. F. Whitehill & Co. 2 215
Romine, F. H. Everett Co. 2 50
Vanderbark, Carter Oil Co. 7 105
Williams, Pure Oil Co. 1 10
Delong, J. T. Benout 1 5
Weiss, F. M. Rugg & Co. 8 4
Weiss, F. M. Rugg & Co. 9 3
McKinney, Jones & Reese 20 3
Forby, Edmonds & Co. 1 6
Stevens, Moore & Adams 14 4
Franks, Detex O. & G. Co. 3 2
Fink, A. H. Heisey Co. 1 ..... gas
McGonagle, Sjindler & Co. 1 2
Hanover Brick Co., Carter Oil Co. 1 .. 30
Porter, F. H. Everett Co. 3 75
Smith-Wareham, Wehrle Brothers 2 2
Grove, Wehrle Brothers 2 ..... gas
Fairfield County—
Smith, Pure Oil Co. 4 ..... dry
McCandlish Ohio F. S. Co. 1 ..... dry
Groff, Hufford & Co. 1 ..... gas
Hyde, Rush Creek O. & G. Co. 3..... 50
Morgan County—
Kimble, A. T. Smith 1 1
Kimble, A. T. Smith 2 2
Donoho, Keller & Co. 15 2
Donelson, Nugget Oil Co. 1 1
Donelson, Nugget Oil Co. 2 1
Donelson, Nugget Oil Co. 3..... 2
Worthington, Metcalf & Co. 4 2
Lovell, Burns & Co. 18 3
Swytzer, Sun Oil Co. 1 20
Smith, Sun Oil Co. 1 ..... dry
Hughes, Pure Oil Co. 3 15
Fry, Pure Oil Co. 4 2
I. Smith, Pure Oil Co. 4 10
Christman, Pure Oil Co. 5 10
Neicewanner, Pure Oil Co. 3 8
Stoneburner, Ark. Fuel Oil Co. 2 ..... gas
Knox County—
Bock, East Ohio P. & R. Co. 7 2
Scott, Ark F. O. Co. 4 2
Hardesty, Ark. Fuel Oil Co. 2 15
Noble County—
McBride, Warren Bros. & Co. 1 3
Kirkbride, American Gas Co. 1 ..... dry
Williams, Herda O. & G. Co. 1 ..... dry
Williams, Herda O. & G. Co. 2 5
Merry, Yerain & Co. 5 ..... dry
Hutchison, White & Co. 2 ..... dry
Melgs County—
Williams, Ohio F. S. Co. 2 5
Singer, Sommers & Co. 1 5
Gossett, Tefon & Co. 1 5
Athens County—
Higgins, Feabault & Co. 3 10
Gadni, Pure Oil Co. 3 ..... gas
Hibbard, Watkins O. & G. Co. 3 7
Louther, Stewart O. & G. Co. 1 ..... dry
Lawson, Bickle & Co. 1 ..... gas
Washington County—
Dana, Reckard & Co. 9 2
Bosworth, Onedia Pet. Co. 25 2
Neland, Citizens Natl Bank 15 2
Wyant, Beuckley & Sons 2 1
Howell, Blair & Co. 1 ..... gas
Smith, Smith & Co. 2 ..... dry
Williams, Heldman & Co. 3 ..... dry
Johnson, E. L. Yeager & Co. 2 7
Weckbacher, Witen Oil Co. 1 ..... dry
Wagner, Wagner & Co. 5 ..... dry
Plumer hrs, Crescent Prod Co. 34 ... dry
Plumer hrs, Crescent Prod Co. 35 ... 1
Beach hrs, E. P. Metcalf 4 2
Schmidt, Wiper & Co. 2 ..... gas
Wolfert, Meister & Co. 13 ..... gas
Holshu, S. G. Turner 7 1
Ward, Oneida Pet. Co. 3 ..... dry
Wickins, Dillon & Co. 33 2
Wickens, Dillon & Co. 32 ..... dry
Chandler, Henning & Co. 2 15
Jefferson County—
Glenn, Boyce & Boyce 3 1
McCorkle hrs, Boyce & Boyce 1 ..... dry
McCulough Brothers, Featner & Co. 2. dry
Carroll County—
Albaugh, Louden O. & G. Co. 3 ..... dry
Columbiana County—
Stoffer, Coraopolis S. & T. Co. 17 2
Johnston, W. A. Baker 1 ..... dry

Wells completed 104
Production 1106
Dry 25
Gas 13

MONROE COUNTY
Rigs
Adams, Antioch Prod. Co. 3.
Piatt, Forshy & Burton 4.
Wells Drilling
Knowlton, Hill & Co. 1.
McNeice, Allen & Co. 1.
Anderson, Silvan O. & G. Co. 7.
PERRY COUNTY
Rigs
Trimmer, O. F. S. Co. 3.
Hemlock Coal Co., Kachelmacher est 3.
McCullough, Carter Oil Co. 1.
Wells Drilling
Sunday C'k C. Co., Sunday C'k C. Co. 129, 130.
McCortney, Southern Oil Co. 8.
Bennett, Bennett O. & G. Co. 6.
Kechensparger, Carter Oil Co. 2.
Essington, Buckeye Supply Co. 1.
Coopenrider, Empire O. & G. Co. 2.
Mohhler, Empire O. & G. Co. 2.
HOCKING COUNTY
Rigs
O'Donnell, O. F. S. Co. 3.
Wagner, Gordon Oil Co. 3.
Huggins, Carter Oil Co. 2.
Miller, Graystone Oil Co. 1.
Webb, Carter Oil Co. 1.
Sunday C'k C. Co., Sunday C'k C. Co. 131.
Wells Drilling
Anthony, Gordon Oil Co. 1.
Rauber, Preston Oil Co. 2.
Webb hrs., Webb O. & G. Co. 1.
Dicken, Oldtown O. & G. Co. 1.
H. V. P. Co., Chartiers Oil Co. 196.
Tracey est., Kachelmacher est 18.
H. F. C. Co., Walter & Co. 2.
Nixon, Westbrook O. & G. Co. 1.
Walters, Chartiers Oil Co. 4.
Brashear hrs., Ketch & Co. 1.
Aker hrs., Murray City O. Co. 6.
HOLMES COUNTY
Rigs
Uhl, Ohio F. G. Co. 5.
Korns, Ohio F. G. Co. 3.
Kendall, East Ohio Gas Co. 3.
Miller, Pure Oil Co. 2.
C. Miller, Pure Oil Co. 4.
McCullough, East Ohio Gas Co. 3.
Wells Drilling
Hoops, Empire G. F. Co. 1.
Carpenter, Empire G. & F. Co. 1.
Middaugh, East Ohio Gas Co. 1.
Mohr, Ohio Oil Co. 1.
A. Mohr, Alice & Co. 1.
Miller, Ark. Fuel Oil Co. 1.
Smith, Empire G. & F. Co. 3.
Uhl, Ohio F. G. Co. 4.
Bird, East Ohio Gas Co. 2.
J. Uhl, East Ohio Gas Co. 5, 6.
Forgy, East Ohio Gas Co. 4.
Snider, East Ohio Gas Co. 1.
Finley, East Ohio Gas Co. 1.
Sowash, East Ohio Gas Co. 3.
Els, Empire G. & F. Co. 1.
Close, Empire G. & F. Co. 1.
Mast, Logan Gas Co. 2.
Hudnut, Clice & Co. 1.
Marquis, Pure Oil Co. 2.
Smith, Pure Oil Co. 1.
GUERNSEY COUNTY
Rigs
Nelson, O. F. G. Co. 1.
Dyer, O. F. G. Co. 1.
Young, O. F. G. Co. 1.
Glenn, O. F. G. Co. 1.
Keith Bros., Keith Bros. 1.
Wells Drilling
Burris, Carbon Black Co. 1.
Hutchinson, O. F. S. Co. 1.
Williams, O. F. S. Co. 1.
Clark, O. F. S. Co. 1.
Oliver, Logan Gas Co. 1.
COSHOCTON COUNTY
Rigs
Wolfert, Spindler, Conlan & Co. 4.
McKee, Spindler, Conlan & Co. 4.
Wells Drilling
Blair, Carter Oil Co. 1.
Blair, Leonard Oil & Gas Co. 2.
Carpenter, Pure Oil Co. 3.
Fair, Ohio Oil Co. 14.
LICKING COUNTY
Rigs
Orr, Midland Oil Co. 3.
Watts, Carter Oil Co. 5.
Wells Drilling
Seward, Pure Oil Co. 4.
Stitt, Whitehill & Co. 4.
Miner, Pure Oil Co. 2.
Vogle, Midland Oil Co. 1.
Bowers, Whitehill & Co. 5.
Gutridge, Pure Oil Co. 1.
C. W. Gutridge, Carter Oil Co. 1.
Weiss, Denbow & Co. 5.
McKinney, Jones & Reese 21.
M. Weiss, Decker & Co. 1.
Stevens, Moore & Adams 15.
Owens, A. H. Heisey & Co. 3.
Kiger, O. F. S. Co. 2.
McGonagle, Spindler & Co. 3.
Vandenbark, Carter Oil Co. 6, 8.
Simpson, E. H. Everett Co. 1.
Parr, Wehrle Brothers 3.
McDonald, Wehrle Brothers 1.
Crooks, Pure Oil Co. 2.
Tilton, Pure Oil Co. 1.
Weekley, A. H. Heisey & Co. 4.
Brevier, A. T. Heisey & Co. 1.
Simpson, E. H. Everett Co. 1.
Phillips, E. H. Everett Co. 2.
McInturf, Swartz & Co. 1.
Montgomery, E. H. Everett Co. 4.
FAIRFIELD COUNTY
Rig
Petty, Planet Oil Co. 1.
Wells Drilling
Smith, Pure Oil Co. 5.
Vanati, Stewart & Co. 1.
MORGAN COUNTY
Rigs
Hughes, Pure Oil Co. 4, 2.
Bush, Pure Oil Co. 3.
Wells Drilling
Calvert, Dinrmoor est., 19.
Souders, Sun Oil Co. 7.
Fye, Pure Oil Co. 5.
Stoneburner, Ark. O. & G. Co. 1.
Pletcher, Swingle Oil Co. 2.
MUSKINGUM COUNTY
Rigs
Ashcraft, Pure Oil Co. 3.
Brown, Carter Oil Co. 1.
Finley, Carter Oil Co. 7.
Hudson, Carter Oil Co. 2.
Duro, Carter Oil Co. 2.
Wells Drilling
Maron, Sun Oil Co. 1.
Haney, local parties 1.
Ashcraft, Pure Oil Co. 1.
Harrop, J. W. Reese 3.

KNOX COUNTY
Rigs
Hibbits, Pure Oil Co. 1.
Gandi, Pure Oil Co. 1.
Wells Drilling
Stringfellow, Pure Oil Co. 1.
Carson, William Carson 2.
Fugan, Ark. Fuel O. Co. 11.
NOBLE COUNTY
Wells Drilling
Walters Washington-Noble Co. Gas Co. 1.
Shuman, Cooper & Co. 3.
Hupp, Ohio Oil Co. 10.
Westcott, Stephens & Co. 1.
Merry, Yorian & Co. 6.
Estdedt, Wickens & Co. 1.
Marsh, Marsh Oil Co. 2.
Ball, Robinron & Co. 1.
Wilhanes, Estadt & Co. 4.
M'IGS COUNTY
Wells Drilling
Lott, Pomeroy Bend Gas Co. 1.
Spencer, O. F. S. Co. 1.
Saulser, Pure Oil Co. 1.
Harnn, Pure Oil Co. 1.
ATHENS COUNTY
Wells Drilling
Jones, Watkins & Co. 1.
Whaley, Beasley & Co. 7.
Hanning, Southern Oil Co. 1.
Wood, Ronhausen & Co. 2.
Capman, Ronhausen & Co. 1.
Radford, Gross & Co. 5.
WASHINGTON COUNTY
Rig
Febauld, Mendenhall & Co. 24.
Wells Drilling
Dana, Reckard & Co. 10.
Schulteis, F. E. Lawrence 1.
Bnersocvk, Becker & Co. 1.
Rhodes, Harris Drilling Co. 1.
Lowe, Lowe & Co. 2.
Hadley, Hadley & Co. 16.
Wagner, Wagner & Co. 6.
Devaul, Col. & Marrtietta Pet. Co. 7.
Muerman, Col. & Marrtietta Pet. Co. 3.
Yost, Harris & Co. 3.
Chandler, Hennigg & Co. 2.
JEFFERSON COUNTY
Well Drilling
Fell hrs., Peters, Heath & Co. 2.
CARROLL COUNTY
Wells Drilling
Long, Mark Miller 3.
Yingling, Lackey & Co. 1.
Herrington, N. G. Co. of W. Va. 2.
COLUMBIANA COUNTY
Well Drilling
Teeter, Bennihoff & Co. 13.
Rigs, 38; wells drilling, 130; total, 168.

LIMA FIELD

Summary of Field Operations

Dist.—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wood	9	169	0	0	0	10	10
Hancock	9	194	0	1	3	8	11
Allen	7	76	1	0	0	4	4
Auglaize	7	95	0	0	0	7	7
Sandusky	5	33	0	0	0	4	4
Mercer	5	60	1	0	0	7	7
Van Wert	4	36	0	0	0	5	5
Seneca	0	0	0	0	0	1	1
Lucas	0	0	0	0	0	3	3
Ottawa	2	35	0	0	0	3	3
Darke	1	0	1	0	1	1	2
Shelby	4	85	1	0	0	14	14
Hardin	4	120	0	0	0	4	4
Paulding	3	37	0	0	4	2	6
Crawford	0	0	0	0	0	1	1
Defiance	0	0	0	0	0	1	1
Michigan	0	0	0	0	0	2	2
Total Aug.	60	940	4	1	8	77	85
Total July	58	616	10	0	5	78	83
Difference	2	324	6	1	3	1	2

WOOD COUNTY
Wells Completed
Plain—E. St. John, Eckler & Collins 18 25
J. A. Foos, Barclay Perry 1 25
Richard H. Green, Virginia Perry 1 abd
Bloom—James Loe, Ohio Oil 21 10
Liberty—Emily Thomas, Underwood Oil 1 70
Perrysburg—Francis Weiland, W. F. Johnson 2 9
Wm. Budd, John E. Welton & Co. 4. 6
Middleton—Mrs. M. Jamerson, Lechner, Twining & Speck 1 4
Troy—W. & H. Hartman, Geo. W. Hoffman 5 15
Lake—Peter Hahnsen, Chas. F. Zeising & Co. 1 5

Wells completed 9
Production 169
Abandoned 1

HANCOCK COUNTY
Liberty—E. L. Latschaw, Base Line Oil 5 100
E. L. Latschaw, Base Line Oil 6 20
Delaware—J. Moore, Brownell Oil 1 gas
Eagle—H. Blymyer, R. Glick & Co. 10. 2
Lem Aurand, Porter & Hovis 19 15
Alice Stauffer, Star & Clark 6 15
J. H. Haley, B. Porter & Co. 21 25
P. H. Powell, Keiser & Temple 3 2
Union—Henry Deeds, Ewing & Montgomery 10 15

Wells completed 9
Production 194
Gas 1

ALLEN COUNTY
American—M. L. Boyer, Mack P. Colt & Co. 52 8
M. L. Boyer, Mack P. Colt & Co. 21, 22, 42 abd.
Bath—Jesse S. Miller, Carman, Botkins & Co. 4 5
M. L. Young heirs, Chas. Geseichen & Co. 5 15
Perry—Graves, Mrs. J. J. Graves 1 10
Graves, Mrs. J. J. Graves 2 dry
Marion—Wm. Barnt, J. Oscar Hoover & Co. 1 22
Stemen-Evers, J. Oscar Hoover 9 16
R. R. Tucker, Wm. Lang 1 abd
Richland—Christ Balmer, John L. Balmer 4, 5, 6, 7 abd
J. Lauby, John L. Balmer 1, 2 abd

Wells completed 7
Production 76
Dry 1
Abandoned 10

AUGLAIZE COUNTY
Moulton—Mrs. S. Whetstone, Cliff Blair & Co. 3 1
Washington—H. Steve, E. B. Jack & Co. 1 35
Douchouquet—Fred Preiser, Boston-S. W. Oil & Gas 6 3
Fred Preiser, Boston-S. W. Oil & Gas 7 10
Fred Preiser, Boston-S. W. Oil & Gas 8 15
Fred Kohler, C. C. Romahe 5 30
Jackson—Jos. Woehrmyer, Crystal Oil 2 12
Logan—C. W. Brincefield, Brincefield Oil & Gas 1, 2, 3 abd.
Jacob Elsley, Pleasant Valley Oil & Gas 7, 8 abd

Wells completed 7
Production 95
Abandoned 5

SANDUSKY COUNTY
Jackson—Martha Talbert, Haubert & Talbert 6 5
Woodville—Henry Bruns, Ohio Oil 23 5
Washington—Amelia Upp, M. G. Norton & Co. 14 5
J. Whitney, M. G. Norton & Co. 4 12
J. Whitney, M. G. Norton & Co. 1 abd
Wm. Haar, W. S. Richards 1, 2 abd
Madison—T. E. Jones, VanVleck-Stowe Oil 8 3

Wells completed 5
Production 33
Abandoned 3

MERCER COUNTY
Hopewell—Elizabeth Eiche, B. Y. J. Oil 1 dry
Center—W. M. Miller, Mack P. Colt 7 5
W. M. Miller, Mack P. Colt 8 10
Liberty—Brehm Bros. Celina Pet. 5 30
Recovery—J. H. Stackler, A. W. Neely & Co. 3 15
J. Brunswick, J. Wellson & Co. 1 abd

Wells completed 5
Production 60
Dry 1
Abandoned 1

VAN WERT COUNTY
York—C. W. Crone, A. C. Grace 2 6
Wm. George, Wheeler Oil 3 13
W. H. Loyd, Hugh Dogie 2 5
Jennings—Koller-Hennon Stelzer & Boyd 7 10

Wells completed 4
Production 36

OTTAWA COUNTY
Harris—H. W. Nieman, Sherman, Richards & Co. 9 10
Benton—Henry Pfeiffer, F. C. Johnson & Co. 1 25

Wells completed 2
Production 35

DARKE COUNTY
Wayne—J. C. & E. English, Lee A Watson 1 dry

SHELBY COUNTY
Cynthian—Frank Danzig, Fort Laramie Oil & Gas 3 50
Joe Siegel, William Property Trus. 2. 15
John Zimmerman No. 1, William Property Trus., 2 20
H. F. Helscher, Siagel & Johnson 3 dry

Wells completed 4
Production 85
Dry 1

HARDIN COUNTY
McDonel—Howard Evans, Boston-S. W. Oil & Gas 1 55
Roundhead Oil & Gas 2 40
A. R. Zimmerman, Sanford, Ulrich & Co. 3 20
Roundhead—Maggie Austine, Defenbaugh & Co. 1 5

Wells completed 4
Production 120

PAULDING COUNTY
Harrison—A. M. Bailey, U. S. A. Oil 5. 25
Benton—Sam Stabler, J. H. Harmon & Co. 2 7
Brown—R. E. Johnson, Roger L. Dill & Co. 2 5

Wells completed 3
Production 37

WOOD COUNTY
Wells Drilling
Freedom—B. Brockover, J. Ed. Matzinger 9.
Plain—Harley Avery, Smith, Hamman & Co. 1.
Bloom—E. H. Monasmith, Ohio Oil 18.
C. A. Browning, Clark A. Browning 39.
Henry—Davis & Conroy, Ohio Oil 15.
Liberty—J. R. Arter, Ohio Oil 28.
Perrysburg—Merlin Speck, Melvin Good 4.
Isaac Whitson, John E. Welton & Co. 1.
Middleton—A. Schuller, Waterville Gas & Oil 9.
Lake—H. C. Michelson, Lants, Schultz & Co. 1.
Wells drilling, 10.

HANCOCK COUNTY
Rig
Liberty—F. Bish, B. B. Porter 1.
Marion—J. G. Oberhoitzer, Findlay Petroleum 14.
Eagle—J. D. Powell, L. Cramer 1.
Wells Drilling
Liberty—E. L. Latschaw, Base Line Oil 7.
Allen—Nathan Taylor, Henry Bussey 3.
Cass—P. C. Redfern, Ohio Oil 15.
Eagle—Henry Deeds, B. Porter & Co. 19.
J. H. Haley, B. Porter & Co. 22.
Alice Stauffer, Star & Clark 7.
Union—Henry Deeds, Ewing & Montgomery 11.
Pleasants—Caines Henry, Bath Township Oil 1.
Rigs, 3; wells drilling, 8; total, 11.

ALLEN COUNTY
Wells Drilling
American—Jos. Brenneman, Ohio Oil 6.
S. R. Jacobs, Mack P. Colt 9.
Spencer—Ed. Reynolds, Short Fork Oil 3.
Bath—H. S. Vore, C. A. Peavey & Co. 1.
Wells drilling, 4.

AUGLAIZE COUNTY
Wells Drilling
Moulton—Wm. Schultz, W. V. Young & Co. 2.
Washington—H. Steve, E. B. Jack & Co. 2.
Douchouquet—Fred Presier, Boston-S. W. Oil & Gas 9.
Fred Kohler, C. C. Romshe 6.
Jackson—Jos. Senger, Robinson & Burke 1.
Lindtuan, Schrack & Co. 1.
Logan—Jas. H. Gochenour, Lang & Murphy 17.
Wells drilling, 7.

SANDUSKY COUNTY
Wells Drilling
Jackson—W. Vandersoll, Rome Oil 1.
Geo. F. Hoffman, Port Clinton Oil 4.
Washington—L. M. Auxter, Auxter Oil 1.
Madison—John Kille, Van Vleck-Stowe Oil 33.
Wells drilling, 4.

MERCER COUNTY
Wells Drilling
Hopewell—Emmett T. Carpenter, Home Banking Co. 1.
Butler—J. Snyder, Recovery Oil & Gas 1.
Center—W. M. Miller, Mack P. Colt 9, 10.
Liberty—M. Lynn, Celina Petroleum 11.
Recovery—J. H. Stackler, A. W. Neely & Co. 4.
Washington—B. Jutte, Dillbone & Co. 1.
Wells drilling, 7.

VAN WERT COUNTY
Rig
York—Keyser-Forewater, Mack P. Colt 5.
Wells Drilling
York—Wm. George, Wheeler Oil 4.
Jennings—Thos. E. Jones, Boyd & Stelzer 3.
Willshire—A. J. Cully, J. H. Harmon & Co. 1.
Ridge—J. E. Moore, Calvin Neely 2.
Rigs, 1; wells drilling, 4; total, 5.

SENECA COUNTY
Well Drilling
Clinton—Henry Bell, C. B. Kinney & Co. 7.

LUCAS COUNTY
Wells Drilling
Monclova—Wm. Black, Swan Creek Oil & Gas 2.
Jerusalem, R. H. & M. A. Eck, Ohio Oil 17.
H. W. Fleitz, Henry G. Gladieux 1.
Wells drilling, 3.

OTTAWA COUNTY
Wells Drilling
Harris—H. W. Nieman, Sherman, Richards & Co. 10.
John H. Myers, Ohio Oil 3.
Catawba Island—J. A. Herald, Underwood Oil & Gas 1.
Wells drilling, 3.

DARKE COUNTY
Rig
Mississinewa—F. Seifring, Illendo Oil 14.
Well Drilling
Wayne—Harve Cramer, Lee A. Watson 1.
Rigs, 1; wells drilling, 1; total, 2.

SHELBY COUNTY
Wells Drilling
Cynthian—J. W. Klocher, Ellerman Oil 2.
Frank Danzig, Fort Laramie Oil & Gas 4.
Chas. Broerman, G. B. Willis & Co. 7.
Henry Danzig, Siagel & Johnson 4.
Peter Geffena, Maui Oil 2.
H. Wiserman, Lee A. Watson 1.
E. Engart, Ohio Oil 1.
Mary Siegel, Wittmer Property, Trust. 1
Laramie—Jos. Mennin, Lee A Watson 1.
H. Paulus, O. J. McGuiggan & Co. 1.
Van Buren—W. Egbert, E. C. Huenke 1.
McLean—B. Barhorst, Siagel & Johnson 1.
James Dunden, Ohio Oil 1.
Casper Lutherman, Robinson & Burk 1.
Wells drilling, 14.

HARDIN COUNTY
Wells Drilling
McDonel—A. R. Zimmerman, Sanford, Ulrich & Co. 4.
Howard Evans, Boston-S. W. Oil & Gas 3.
Elizabeth McArthur, Roundhead Oil & Gas 3.
Marion—Earl Smith, McGuffey Oil & Gas 3.
Wells drilling, 4.

PAULDING COUNTY
Rig
Harrison—C. C. Springer, John T. Schunck 4, 5.
A. M. Bailey, U. S. A. Oil 6.
Nancy Bailey, Geo. S. Lacknett 1.
Wells Drilling
Harrison—Thos. Lamb, John A. Thompson & Co. 4.
John Stabler, H. L. Ogle 2.
Rigs, 4; wells drilling, 2; total, 6.

CRAWFORD COUNTY
Well Drilling
Galion—Town lot, Weed-Hamilton Oil 1.

DEFIANCE COUNTY
Well Drilling
Adams—Adams Township Oil & Gas 1.

MICHIGAN
MONROE COUNTY
Well Drilling
Dundee—Frank Roe, Jackson County Oil & Gas 1.

JACKSON COUNTY
Well Drilling
Napoleon—Silvers, Jackson County Oil & Gas 1.

ILLINOIS FIELD

Summary of Field Operations

Dist.—	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Clark	10	256	0	0	5	5
Cumberland	0	0	0	0	1	1
Crawford	3	32	0	0	5	5
Lawrence	1	5	0	0	3	3
Marion	4	35	2	0	0	0
Wabash	2	5	1	0	0	0
Douglas	0	0	0	0	1	1
Union	0	0	0	0	1	1
Edwards	0	0	0	1	0	1
McDonough	1	0	1	0	0	0
Fayette	0	0	0	1	1	2
Morgan	1	1	0	0	3	3
Jackson	0	0	0	0	5	5
Total August	22	338	4	2	25	27
Total July	24	321	6	2	37	39
Difference	2	485	2	0	12	12

Note—One gas well was completed in Illinois in July.

WELLS COMPLETED
CLARK COUNTY
Parker—A. S. Brand, Shrider, Coats & Co. 1 2
N. B. Lee, King-Baldridge Co. 4 2
C. T. Marshall, W. H. Squires 27 3
A. J. Bigelow, Ohio Oil 38 3
Casy—A. W. Baker, Ellis, Myers & Co. 2 40
Martinsville—Nettie Baker, W. C. McBride, Inc. 8 45
Mary J. McClelland, C. W. Titus & Co. 3 40
T. J. Ramsey, John T. Smith & Co. 2 25
Frank Morgan, VanOrden & Co. 4 40
S. H. Broeman, Ohio Oil 17 58

Wells completed 10
Production 256

CRAWFORD COUNTY
Honey Creek—Highsmith Bros. T. D. Toomey 14 8
Montgomery—Mary Duncan, John Phipps & Co. 1 9
Prairie—J. A. Newlin, M. Phelan & Co. 12 20
Robinson—L. J. Cox, Rosenthal & Co. 3 abd.
V. L. Whitmer, Rosenthal & Co. 1 abd

Whiston & Maxwell, Rosenthal & Co. 1 ..... abd

Wells completed 3
Production 32
Abandoned 3

LAWRENCE COUNTY

Bridgeport—E. Combs No. 2, Ohio Oil 12 5
Dennison—H. A. Seed, Ohio Oil & Silurian Oil 5 ..... abd
Thos. Taylor, Ohio Oil 6 ..... abd
Petty—E. F. Dalrymple, Silurian Oil 12. abd

MARION COUNTY

Centralia—H. Kalberkamp, Petro Oil & Gas 5 30
W. Langewich, Timberlake & Leighty 2 5
Mooney & Co., Womac Oil & Gas 1.. dry
Patoka—L. E. Green, Ohio Oil 1 ..... dry

Wells completed 4
Production 35
Dry 3

WABASH COUNTY

Wabash—M. Richter, Phipps & Blosser 1 ..... dry
D. H. Price, Joe S. Young Jr. & Co. 1 5
J. T. Smith, Adams Corner Oil Co. 1. abd

Wells completed 2
Production 5
Dry 1
Abandoned 1

MORGAN COUNTY

Jacksonville—Section 15-9-1e west W. F. Cody 1 5

McDONOUGH COUNTY

Lamoine—Adams, Unknown parties 1.. dry

BLACKFORD COUNTY
Well Drilling

Harison—A. F. Guard, Montpelier Development 1.

JAY COUNTY
Well Drilling

Penn—Bourne Bros., A. M. Jones & Co. 4.

ADAMS COUNTY
Wells Drilling

Delaware—Levi Brooker, Hoke, Sargent & Co. 1.
L. M. Coons, Clark & Hawkins 9.
Wells drilling, 2.

RANDOLPH COUNTY
Rig

Green—W. Cline, T. O. Thorp 2.

GIBSON COUNTY
Well Drilling

Union—Tieman Bros., J. H. Young & Co. 2.

PIKE COUNTY
Well Drilling

Washington—C. Dawson, Loeb, Fought & Co. 2.

SULLIVAN COUNTY
Wells Drilling

Turman—Josephine Dix, Ohio Oil & Kennedy 19.
J. C. Shields, Billman & Co. 1.
Wells drilling, 2.

ALLEN COUNTY
Wells Drilling

Maumee—H. D. Helmke, Waterloo Oil & Gas 2.
Near Baldwin, E. Stevenson 1.
Wells drilling, 2.

HENDRICK COUNTY
Well Drilling

Clay—W. E. Christy, Amo Oil 1.

JACKSON COUNTY
Well Drilling

Near Freetown, Unknown 1.

SHELBY COUNTY
Well Drilling

Van Buren—J. Harve Snyder, L. Nicholson 1.

SPENCER COUNTY
Well Drilling

Dale—Huppert 160 acres, Howard & Co. 1.

LAGRANGE COUNTY
Well Drilling

Howe—Howe Oil & Gas 1.

DAVIESS COUNTY
Wells Drilling

Veale—John Peek, C. H. Parrott 1.
Unknown, Earl DeWeese, Phipps & Blosser 1.
Unknown, Hartman, Sargent & Co. 1.
Wells drilling, 3.

INDIANA FIELD

Summary of Field Operations

Dist.—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Blackford	0	0	0	0	1	1	
Jay	0	0	0	0	1	1	
Adams	0	0	0	0	1	1	
Delaware	0	0	0	0	2	2	
Randolph	0	0	0	1	0	1	
Gibson	2	25	2	0	0	1	1
Pike	1	0	1	0	0	1	1
Sullivan	5	0	4	1	0	2	2
Allen	2	50	0	0	0	2	2
Hendricks	0	0	0	0	0	1	1
Jackson	0	0	0	0	0	1	1
Shelby	0	0	0	0	0	1	1
Spencer	0	0	0	0	0	1	1
Lagrange	0	0	0	0	0	1	1
Daviess	0	0	0	0	0	3	3
Total Aug. 11	75	7	1	1	19	20	
Total July 16	175	6	1	1	24	25	
Difference 5	100	1	0	0	5	5	

WELLS COMPLETED

Barton—G. W. Finch, Joe S. Young, Jr., & Co. 1 25
Eliza M. Harper, Consolidated Oil & Nelson 2 ..... dry
Columbia—U. G. Butcher, Goster Oil 1 dry

Wells completed 3
Production 25
Dry 2

PIKE COUNTY

Logan—F. Chandler, Rendale & Chandler 1 ..... dry

SULLIVAN COUNTY

Turman—J. R. Riggs, J. R. Riggs 1... dry
C. Worner, Billman & Co. 1.. dry
Hamilton—A. J. Ross, R. J. Smith 1.. dry
Gill—R. M. Bledsoe, Fred Bays 2 ..... gas
Fairbanks—J. T. Harrison, Hollingsworth & Co. 2 ..... dry

Wells completed 5
Dry 4
Gas 1

ALLEN COUNTY

Maumee—Richard Johnson, West Mansfield Oil & Gas 1 25
J. H. Garbesm, A. S. Cochran & Manion 1 25

Wells completed 2
Production 50

CLARK COUNTY
Wells Drilling

Parker—C. Inman, Lusk, Stratton & Co. 1.
Casey—John Laigner, B. H. Heaton & Co. 4.
Martinsville—John S. Carper, Trenton Rock Oil & Gas 4.
T. J. Ramsey, John T. Smith & Co. 2.
Marshall—Near Marshall, S. E. Merrifield & Co. 1.
Wells drilling, 5.

CUMBERLAND COUNTY
Well Drilling

Union—J. W. Church, James S. Harper 1.

CRAWFORD COUNTY
Wells Drilling

Martin—A. M. Shipman, James Pease & Co. 14.
Honey Creek—Isaac Conover, Grant Jessup & Co. 1.
Montgomery—C. A. & W. L. Dickinson, National Refining 1.
Prairie—J. A. Newlin, M. Phelan & Co. 13.
Robinson—Geo. W. Tracy, Stranahan & Cheuvront 1.
Wells drilling, 5.

LAWRENCE COUNTY
Wells Drilling

Lawrence—G. C. Dunlap, Samuels, Duffield & Co. 10.
Petty—D. P. Stoltz No. 1, Ohio Oil 9.
Bond—Geo. Stevenson, Walter Squires 1.
Wells drilling, 3.

DOUGLAS COUNTY
Well Drilling

Sargent—W. E. Brown, Douglas Oil 1.

UNION COUNTY
Well Drilling

Bald Knob, Near Alta Pass, W. MacSmith 1.

EDWARDS COUNTY
Rig

Near Graysville—George Porter & Co. 1.

FAYETTE COUNTY
Rig

John Baxter, H. McCurdy & Co. 1.
Well Drilling
Unknown, Ohio Oil 1.
Rig, 1; well drilling, 1; total, 2.

MORGAN COUNTY
Wells Drilling

Jacksonville—Section 15-9-3 west, W. F. Cody 2.
Section 15-9-3 west, Unknown parties 1.
NE part Range 10, Jacksonville parties 1.
Wells drilling, 3.

JACKSON COUNTY
Wells Drilling

Bradley—Rickenbaugh No. 1, Mid-Egypt Oil & Gas 6.
Rickenbaugh No. 2, Mid-Egypt Oil & Gas 3.
Arley, Unknown 1.
Geo. Ziebold, Unknown 1.
Section 14, Unknown 1.
Wells drilling 5.

CENTRAL OHIO

Summary of Field Operations

Dist.—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Fairfield	1	0	0	1	0	1	1
Ashland	7	0	0	7	5	11	16
Medina	7	81	4	1	4	7	11
Lorain	9	0	5	4	7	10	17
Wayne	6	46	2	3	3	6	9
Richland	1	0	0	1	0	1	1
Holmes	10	445	2	3	7	24	31
Jackson	1	0	0	1	3	1	4
Athens	10	10	3	5	2	5	7
Ross	0	0	0	0	0	1	1
Coshocton	1	0	1	0	0	1	1
Cuyahoga	0	0	0	1	0	0	0
Total Aug.	54	531	17	27	31	68	99
Total July	39	155	14	15	28	70	98
Difference	15	376	3	12	3	2	1

Wells Completed
FAIRFIELD COUNTY

Berne—Kiefaber, Lancaster Natural Gas Works 1 ..... gas

ASHLAND COUNTY

Hanover—Howard Bookman, Lagon Gas 2 ..... gas
J. W. Sellers, Logan Gas 1 ..... gas
Orange—H. B. Wertman, Logan Gas 1 gas
L. H. and F. Smith, Logan Gas 1.... gas
E. E. Markel, Hulse & Kundts 1 .... gas
G. B. Frey, Frey Gas 1 ..... gas
Greene—Henry Casner, Ohio Fuel Gas 1 gas

Wells completed 7
Gas 7

MEDINA COUNTY

Lafayette—Hipolite Karas, Ohio Fuel Gas 1 ..... dry
Athea Stewart, Arthur & Mills 1... gas
Westfield—Frank Hoff, Logan Gas 2 .. dry
York—Ada G. Swartz, Ohio Fuel Gas 1 dry
Granger—Frank E. Welton, Empire Gas & Fuel 1 30
Spencer—S. Reyland, Eppeneur, McClelland & Co. ..... dry
Chatham—Carl G. Packard, The Edison Co. 20 1

Wells completed 7
Oil wells 2
Production, oil 31
Dry 4
Gas 1

LORAIN COUNTY

Columbia—J. and E. Greenwald, Ohio Fuel Gas 1 ..... gas
F. A. Adams, Empire Gas & Fuel 1.. dry
Jeremiah Martin, Logan Gas 1..... dry
Jesse Adams, Logan Gas 1 ..... gas
E. and G. Reisinger, Logan Gas 1 ... dry
G. D. and I. E. Alexander, Logan Gas 1 ..... gas
J. Squires, Wiser Oil 1..... dry
L. L. Ring, Wiser Oil 2 ..... gas
Lucy Martin, Logan Gas 2..... dry

Wells completed 9
Dry 5
Gas 4

WAYNE COUNTY

Wooster—Jesse Hess, Ohio Oil 2..... 45
J. Sherrick, East Ohio Gas 1..... dry
Congress—John Sheppard, Glen Harmon & Co. 1 ..... dry
Canan—D. W. Hemming, Logan Gas 2. gas
Adelbert Moine, Logan Gas 1..... gas
J. Fetzer, Arthur & Mills 1 ..... gas

Wells completed 6
Oil wells 1
Production, oil 45
Dry 2
Gas 3

RICHLAND COUNTY

Madison—Emil Schausee, Mansfield parties 1 ..... gas

HOLMES COUNTY

Monroe—U. S. Davenport, Empire Gas & Fuel 1 ..... gas
Wm. Martin, Empire Gas & Fuel 1.. dry
Albert Bell, Ohio Fuel Gas 1..... 15
Prairie—Wayne F. Kendall, East Ohio Gas 2 ..... gas
Hardy—Dave R. Anderson, East Ohio Gas 2 125
S. H. Sterling, East Ohio Gas 2 250
M. McCullough, East Ohio Gas 2.... gas
Mary E. Bridges, Empire Gas & Fuel 1 25
Kilbuck—Della Walton, Empire Gas & Fuel 1 30
Loretta House, East Ohio Gas 2..... dry

Wells completed 10
Oil wells 5
Production, oil 445
Dry 2
Gas 8

JACKSON COUNTY

Lick—E. Cherrington, Ohio Fuel Supply 1 ..... gas

ATHENS COUNTY

Carthage—J. W. Kincaide, Logan Gas 3 gas
M. Kinnon, Logan Gas 4 ..... dry
Eva Clark, Logan Gas 1 ..... gas
F. W. Chapman, Shady River Oil & Gas 11 ..... gas
F. W. Chapman, Athens County Oil & Gas 2 ..... gas
R. J. Runion, Ohio Fuel Supply 1.... dry
F. E. Clark, Snodgrass & Co. 1..... 5
Troy—Timothy Russell, Dunham Bros. 1 ..... dry
Rome—P. D. Patton, Ohio Fuel Supply 1 ..... gas
Waterloo—Elisabeth Efaw, Logan Gas 1 5

Wells completed 10
Oil wells 2
Production, oil 10
Dry 3
Gas 5

COSHOCTON COUNTY

White Eyes—Daniel Gribble, Empire Gas & Fuel 1 ..... dry

CUYAHOGA COUNTY

Dover—C. E. Hall, Hulse & Kundts 3.. gas

FAIRFIELD COUNTY
Wells Drilling

Rush Creek—L. C. McCandlish, Ohio Fuel Gas 1.

ASHLAND COUNTY
Rigs

Hanover—J. P. Kick, Logan Gas 1.
Orange—H. B. Wertman, Logan Gas 2.
Floyd Shaum, Logan Gas 1.
E. E. Markel, Hulse & Kundts 2.
Greene—Maurer & Covert, Ohio Fuel Gas 2.
Wells Drilling
Hanover—Milton Wise, Logan Gas 1.
H. Bookman, East Ohio Gas 2.
R. and E. Brown, Ohio Fuel Gas 1.
Orange—J. J. Brown 6, Logan Gas 1.
J. P. Calhoun, Logan Gas 2.
Clayton I. Harmon, Logan Gas 1.
Eliza McBride, Logan Gas 2.
S. L. Markel, Logan Gas 1.
Wm. Baughman, Orange Oil & Gas Corp. 1.
Greene—Martha Bowman, Logan Gas 2.
P. C. Cowen, Logan Gas 2.
Rigs, 5; wells drling, 11; total, 16.

MEDINA COUNTY
Rigs

Lafayette—R. O. Wheeler, Ohio Fuel Gas 1.
York—Frederick Baker, Hulse & Kundts 1.
Hinkley—W. Warner, Ohio Fuel Gas 2.
Homer—D. Wandell, Ohio Fuel Gas 1.
Wells Drilling
Harrisville—Jas. Mapes, Hulse & Kundts 1.
Montville—Fairfax, N. Smith, Ohio Fuel Gas 1.
J. K. Nold, Ohio Fuel Gas 1.
Westfield—W. D. Mosier, Logan Gas 1.
York—H. and F. Zeigler, Ohio Fuel Gas 1.
Liverpool—Geo. Stoskopf, Ohio Fuel Gas 1.
Brunswick—Laura Oberholt, Ohio Fuel Gas 1.
Rigs, 4; wells drilling, 7; total, 11.

LORAIN COUNTY
Rigs

Columbia—L. Barber, Ohio Fuel Gas 1.
Marion B. Jasper, Ohio Fuel Gas 1.
M. G. Weekley, Ohio Fuel Gas 2.
John Longbon, Ohio Fuel Gas 1.
I. F. Ring, Ohio Fuel Gas 2.
Wm. Rundle, Logan Gas 1.
Sylvia A. Ives, Logan Gas 2.
Wells Drilling
Grafton—J. L. Law, Ohio Fuel Gas 1.
Sheffield—James Day, The Edson Co. 1.
Columbia—G. and M. Hance, Ohio Fuel Gas 1.
J. and E. Greenwald, Ohio Fuel Gas 2.
I. F. Ring, Ohio Fuel Gas 1.
W. D. Wilson, Empire Gas & Fuel 1.
Oliver Leitner, Empire Gas & Fuel 2.
C. and J. Harold, Wiser Oil 3.
Jeremiah Martin, Logan Gas 3.
A. H. Osborne, Dillon & McFredericks 1.
Rigs, 7; wells drilling, 10; total, 17.

WAYNE COUNTY
Rigs

Cannan—W. Shoemaker, Empire Gas & Fuel 1.
Paint—Isaac Y. Miller, Ohio Fuel Gas 1.
J. M. Westcott, Ohio Fuel Gas 1.
Wells Drilling
Wooster—Wm. M. Orr, Ohio Oil 3.
Infirmary land, Ohio Oil 23.
Milton—Wilson Steele, Logan Gas 1.
Wayne—Jay Yoder, Wm. Hawk & Co. 1.
Cannan—Earl Kinch, William Denney & Co. 1.
Arthur J. Irvine, Ohio Fuel Gas 2.
Rigs, 3; wells drilling, 6; total, 9.

RICHLAND COUNTY
Wells Drilling

Franklin—J. Lantz, Coyle & Matthews 2.

HOLMES COUNTY
Rigs

Monroe—B. P. Uhl, Ohio Fuel Gas 5.
Oscar Kerns, Ohio Fuel Gas 3.
Newton Lowe, Empire Gas & Fuel 1.
Prairie—W. H. Miller, The Pure Oil 2.
Ripley—V. D. & E. Williams, Ohio Fuel Gas 2.
Hardy—Harriett McCullough, East Ohio Gas 3.
Wells Drilling
Monroe—Wm. A. Smith, Empire Gas & Fuel 3.
B. P. Uhl, Ohio Fuel Gas 4.
B. C. Bird, East Ohio Gas 2.
W. & L. Armstrong, Klise-Eckstein-McCann 1.
Wm. Miller, Arkansas Fuel Oil 1.
Prairie—J. Clark Smith, The Pure Oil 1.
Lee Durbin, The Pure Oil 2.
Wayne F. Kendall, East Ohio Gas 3.
Washington—L. E. Denny, Logan Gas 1.
Hardy—Scott V. Mast, Logan Gas 2.
D. & W. Finley, East Ohio Gas 1.
L. A. Sowash, East Ohio Gas 1.
Jacob Uhl, East Ohio Gas 5.
J. R. Forgey, East Ohio Gas 4.
Edwin Snyder, East Ohio Gas 1.
Jacob Uhl, East Ohio Gas 6.
A. M. Hudnut, Klise-Eckstein-McCann 1.
Jesse P. Close, Empire Gas & Fuel 1.
J. M. Ela, Empire Gas & Fuel 1.
Kilbuck—C. M. Hoops, Empire Gas & Fuel 2.
Franklin Carpenter, Empire Gas & Fuel 1.
Byron Middaugh, East Ohio Gas 1.
Rachael Morr, Ohio Oil 1.
L. & A. Mohr, Klise-Eckstein-McCann 1.
Rigs, 7; wells drilling, 24; total, 31.

JACKSON COUNTY
Rigs

Franklin—Geo. W. Westlake, Ohio Fuel Gas 1.
Washington—S. E. Oghier, Ohio Fuel Gas 1.
Mary C. Anthony, Ohio Fuel Gas 1.
Wells Drilling
Coal—R. B. Rice, Ohio Fuel Supply 1.
Rigs, 3; wells drilling, 1; total, 4.

ATHENS COUNTY

Carthage—F. Cole, Logan Gas 1.
J. & M. Schuller, Logan Gas 1.
Wells Drilling
Carthage—C. D. Swartz, Athens County Oil & Gas 1.
M. Kinnon, Logan Gas 5.
O. H. Persinger, Walden & Co. 1.
Troy—Nettie Richardson, Ohio Fuel Sup. 1.
Rome—D. W. Connell, Muskingum Gas 1.
Rigs, 2; wells drilling, 5; total, 7.

ROSS COUNTY
Wells Drilling

Colerain—Amos Brown, Waring Oil 1.

COSHOCTON COUNTY
Wells Drilling

Newcastle—J. W. Frazier, Logan Gas 1.

KENTUCKY-TENNESSEE

Summary of Field Operations

Dist.—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Warren	3	24	4	0	1	21	22
Allen	8	11	6	0	2	17	19
Barren	40	208	7	2	0	28	28
Owensboro	14	89	5	1	0	21	21
Cumberland							
Monroe	10	165	5	0	0	11	11
Hopkins	1	5	0	0	0	3	3
Grayson	0	0	0	0	0	2	2
Russell	0	0	0	0	0	3	3
Logan	0	0	0	0	0	2	2
Simpson	1	4	0	0	0	2	2
Metcalf	0	0	0	0	1	0	1
Meads	0	0	0	0	0	1	1
Adair	0	0	0	0	0	3	3
Wayne	6	66	2	0	0	19	19
Wolfe	0	0	0	0	0	2	2
Jackson	0	0	0	0	0	1	1
Boyd	0	0	0	0	0	1	1
McCreary	0	0	0	0	0	2	2
Estill	0	0	0	0	0	3	3
Breathitt	0	0	0	0	1	1	2
Lee-Owsley	2	2	1	0	0	16	16
Lawrence-Johnson	7	97	1	0	6	18	24
Johnson-Magoffin	11	49	0	0	2	35	37
Floyd	4	0	0	4	0	9	9
Greenup	3	0	3	0	2	4	6
Martin	0	0	0	0	0	2	2
Morgan	1	10	0	0	0	6	6
Elliott	0	0	0	0	0	1	1
Kentucky	117	820	34	7	15	249	264
Tennessee	5	0	4	1	7	25	32
Mississippi	0	0	0	0	2	10	12
Alabama	0	0	0	0	1	9	10
Georgia	0	0	0	0	1	4	5
Total Aug.	122	820	38	8	26	297	323
Total July	142	1,059	37	11	29	315	344
Difference	20	229	1	3	3	18	21

WELLS COMPLETED
WARREN COUNTY

Bowling Green—Wilson, Onsel-Harnaham Oil Co. 9 4
C. A. Kellar, Belvedere Oil Co. 1 ... 2
Stone, C. E. Foster 6 ..... dry
Mrs. C. W. Jones, Baker-Jones Syn. 12 dry
Grimes, Wood Oil Co. 11 6
Jennie Briggs, Samuel Kats 12 8
C. P. Kelley, Joe Goldberg 1 ..... dry
Holland, Richpond Oil Co. 1 ..... dry
Stewart, L. C. Madison 1 4

Wells completed 9
Production 24
Dry 4

ALLEN COUNTY

Scottsville—Beam, Keyes Oil Corp. 8 .. dry
Joe Allen No. 2 farm, W. L. Baird 9.. 3
W. E. Simmons, E. M. Treat & Co. 1 . dry
Travelstead, H. A. Kiser 6 8
Smith, Keyes Oil Corp. 2 ..... dry
Lyle, Work & Son 1 ..... dry
Sam Berion, unknown parties 1 .... dry
Kennedy, Sutton & Co. 2 ..... dry

Wells completed 8
Production 11
Dry 6

BARREN COUNTY

Glasgow—Mayfield, Houchins Leasehold Oil Co. 1 6
Mayfield, Houchins Leasehold Oil Co. 1 ..... dry
Ziegler, Mayfield, Houchins Leasehold Oil Co. 9 10
Zigler, Mayfield, Houchins Leasehold Oil Co. 10 10
Oakes, Alladin Oil Co. 2 8
Warder, Elem O. & G. Co. 10 15
Howard, Fred Moore 6 8
Howard, Fred Moore 7 12
Howard, Fred Moore 8 4
Gasaway, Fred Moore 2 5
Smith, Craig, Crain & Smith 16 5
Ritchie, Star Oil Co. 21 8
Ritchie, Star Oil Co. 22 15
Ritchie, Star Oil Co. 23 5
Ritchie, Star Oil Co. 24 5
Taylor Mansfield, Ziegler Bros. 7 10
Taylor Mansfield, Ziegler Bros 8..... 15
Taylor Mansfield, Ziegler Bros. 15
Depp-Greer, L. J. Emery Jr. & Sons 13 dry
Depp-Greer, L. J. Emery Jr. & Sons 14 10
Depp-Greer, L. J. Emery Jr. & Sons 15 15
McGlocklin, Porter & Co. 8 10
Chamberlin, T. L. Gorby 3 4
Cassiday, Hiland Oil Co. 7 12
L. D. Smith, Beller & Stump 1 ..... dry
Fisher, Kopel Oil Co. 1 ..... dry
Jolly, Smith & Sons 1 ..... dry
Jim Jones, Consolidated Gas Co. 1.. gas
Depp, Consolidated Gas Co. 4 15
Depp, Consolidated Gas Co. 5 26
Depp, Consolidated Gas Co. 6 14

Preston, Consolidated Gas Co. 2 8
Houck.. Wood Oil Co. 3 2
M. Church, Wood Oil Co. 2 6
J. Church, Wood Oil Co. 7 15
Evans, Harrington & Norris 8 15
Hucherson, Harrington & Norris 2 ... 5
Britt, W. G. Moorman 1 ..... dry
McKenzie, W. G. Moorman 1 ..... dry
Nichols, Porter & Co. 1 ..... gas

Wells completed 40
Production 308
Dry 7
Gas 2

OWENSBORO DISTRICT

Owensboro—Jess Swope, Pennsylvania-Indiana Oil Syn. 6 ..... dry
Jess Swope, Pennsylvania-Indiana Oil Syn. 7 25
Abe Howe, Pennsylvania-Indiana Oil Syndicate 6 9
Widow Crowe, C. E. Daugherty 6 ... 20
Ann Griffith, Randolph & Carson 1 . dry
Allie Evans, Triangle Oil Co. 1 ..... gas
Purcell, Triangle Oil Co. 1 ..... dry
Sophia Stinnin, R. E. Diament 1 .. dry
J. W. Smith, Pennsylvania Creek Oil Co. 7 5
Miller, Panther Creek Oil Co. 16 8
Kate Phillips, I. N. Harkless 1 .... dry
H. D. Brown, C. A. Leeper 2 8
A. Stewart, Kentucky Oil Co. 18..... 10
Bert Thompson, Spice Knob Dev. Co. 4 4

Wells completed 14
Production 89
Dry 5
Gas 1

CUMBERLAND-MONROE COUNTIES

Burkesville—Lucy Logan, Daniel Boone Oil Co. 5 10
Salina Raydure, W. S. Raydure 3 ... 5
A. Sharp, Wilcox Bros. 1 ..... dry
Davidson, Wilcox Bros. 1 ..... dry
T. L. Bow, Freeman & McCormick 4 25
Sarah Sheckles, Wilcox Bros. 3 25
M C. Scott, Vedder Oil Co. 1 100
B. M. Thurman, Mineral Rights Oil Co. 1 ..... dry
Less Butler, W. P. Mason 1 ..... dry
J. I. Gidding, Cumberland Oil Co. 1. dry

Wells completed 10
Production 165
Dry 5

HOPKINS COUNTY

Nortonville—Hellman, Copper Flash Oil Co. 8 5

SIMPSON COUNTY

Franklin—Hogan, Small & Sully 10 ... 4

WAYNE COUNTY

Monticello—Huffaker-Smith, Bridgman Oil Co. 4 1
Fairchild, F. M. Taylor & Co. 3 ..... dry
Dabney, Superior Oil Co. 9 20
J. A. Brown, Shearer, Marsh & O'Keefe 3 20
J. A. Brown, Shearer, March & O'Keefe 4 ..... dry
Jas. Cooper, Dillion & Wetzel 7 25

Wells completed 6
Production 66
Dry 3

LEE-OWSLEY

Idamay—Spencer hrs., McCandless & Co. 1 ..... dry
Huntington, Kentucky-Indiana Oil Syn. 5 2

Wells completed 2
Production 2
Dry 1

LAWRENCE-JOHNSON COUNTIES

North Weir—J. D. Fox, David Fox 2 ... 2
L. T. Sparks, Garrison & Townsend 5 15
Wm. Bond, Garrison & Townsend 1 .. dry
C. K. Dobyne No. 2 farm, Union Gas & Oil Co. 2 15
C. K. Dobyne No. 13 farm, Union Oil & Gas Co. 13 25
P. P. Holbrook, Union Oil & Gas Co. 23 10
Mrs. Proctor Smith Union Oil & Gas Co. 23 30

Wells completed 7
Production 97
Dry 1

JOHNSON-MAGOFFIN COUNTIES

South Weir—W. S. Adams, Petroleum Exploration 23 2
W. S. Adams, Petroleum Exploration 24 4
W. S. Adams, Petroleum Exploration 25 3
Bailey hrs., Diamond Oil Co. 5 1
Jesse Borders, O. J. Hamlin 2 1
Martha Cooley, Oliver Jenkins 12 -... 5
F. M. Moore, R. G. Gillespie 3 7
F. M. Moore, R. G. Gillespie 4 6
F. M. Moore, R. G. Gillespie 5 3
Julia Sayler, Magoffin Dev Syn. 3... 7
J. M. Rose, Indian-Tex Pet. Co. 11.. 10

Wells completed 11
Production 49

FLOYD COUNTY

Beaver Creek—John Martin, New Domain O. & G. Co. 5 ..... gas
Kate Spencer, Eastern Carbon Black Co. 2 ..... gas
Summitt area, American Roller Mills 11 ..... gas
Summitt area, American Roller Mills 12 ..... gas

Wells completed 4
Gas 4

GREENUP COUNTY

Greenup—Baglin, L. C. Young 1 ..... dry
Near Chenault well, Foreman & Co. - dry
At head of Grassy Creek, Patton & Deardoff 1 ..... dry

Wells completed 3
Dry 3

MORGAN COUNTY

West Liberty—Lee Owen, Jeff Allen 3.. 10

TENNESSEE

OVERTON COUNTY

Livingston—Mitchell Creek, W. H. Boswell 1 ..... dry

PUTNAM COUNTY

Cookeville—Double Springs, Clarke & Co. 1 ..... gas

MACON COUNTY

Bearfoot Creek—Jim Hayes, Carson & Co. 1 ..... dry

DE KALB COUNTY

Liberty—Overhall, local parties 1 .... dry
Unknown, local parties 1 ..... dry

Wells completed 2
Dry 2

WARREN COUNTY

Rig

Bowling Green—C. G. Davenport, Wood Oil Co. 22.

Wells Drilling

Bowling Green—G. Davenport, T. A. Sheridan 2.
G. Davenport, No. 3, T. A. Sheridan 2.
G. Davenport, No. 2 T. A. Sheridan 9, 10.
G. Davenport, McGee & Co. 2.
G. Davenport, Wood Oil Co. 21.
G. Davenport, Ruth Turner 4.
G. Davenport, Onsel-Harnahan Oil Co. 4.
J. M. Morgan, Moken Oil Co. 2.
Baker-Jones, Hogan Bros. 1.
Jennie Briggs, Samuel Katz 11.
Smith, William Gettings 3.
Hobson hrs., Pennhoma Oil Co. 15.
Biddle, Cadet G. & G. Co. 24.
Bearie Snell, New Domain O. & G. Co. 7.
McGinnis, Evans Oil Corp. 3.
Marg. Hobson, Samuel Katz 17.
Wilson, Onsel-Harnahan Oil Co. 10.
Grimes, Wood Oil Co. 12.
C. A. Keller, Belvedere Oil Co. 12.
W. R. Hunton, F. H. Lavelle 7.
Worden, C. P. Taneyhill 1.
Bryant, H. A. Henry 12.
Gillispie, H. Z. Clarke, tr. 8.
Smith, Essex Pet. Co. 7.
Detheridge, Owen, Whitner & Shock 2.
C. P. Barlow, Allen and others 2.
Butts, V. Bartleete 7.
W. E. Hardcastle, Phillips & Brewer 3.
S. T. Pearson, Dickson & Sledge 7.
Cox, Bannon & Stewart 23.
Rigs, 1; wells drilling, 31; total, 32.

ALLEN COUNTY

Rigs

Scottsville—C. Hailey, New Domain O. & G. Co. 1.
F. Dyson, Ruby Cons. Dev. Co. 11.

Wells Drilling

Scottsville—Lee Moore, Lee Moore 6.
W. E. Oliver, A. E. Moffert 15.
Y. Taiber, White Plains O. & G. Co. 15.
Joe Alle No. 2 farm, W. L. Baird 10.
J. H. Richardson, Rickman & Larman 11.
W. F. Johnson, McMullen & Morgan 5
S. & K. Thatton, C. Deardoff 3.
J. W. Frost, W. G. Moorman, tr, 14.
Bradley, H. A. Kiser 1.
Miller, Keyes & Co. 4.
Dinkins, Stafford & Co. 1.
Kerley, Well-Huebring & Co. 13.
R. Smith, Hice & Co. 2.
E. L. Ayers, Wynn, Lowe & Co. 21.
D. G. Thacker, C. B. Brown 7.
Virgil McGuire, Dye Bros. 1.
Vern Douglass, Mrs. La Duc 1.
Rigs, 2; wells drilling, 17; total, 19.

BARREN COUNTY

Wells Drilling

Glasgow—G. Mansfield, Houchins Leasehold Co. 8, 9.
Ziegler, Houchins Leasehold Co. 11.
Gum, L. J. Emery Jr. & Sons 2.
Travis, Fred Moore 10.
Regal, Laree Oil Co. 3.
Scott, Wiggins & Gillespie 11.
Ritchie, Star Oil Co. 35, 36, 37.
Gassaway, Fred Moore 4.
Smith, Craig, Craig & Smith 16.
Taylor Mansfield, Ziegler Bros. 10.
B. Neeley, Kopel Oil Co. 7.
Depp & Green, L. J. Emery, Jr. & Sons 16, 17, 18.
Bales, Riland Oil Co. 1.
McGlocklin, Porter & Co. 9.
Turner, Conrolidated Gas Co. 4.
Hodman, Wood Oil Co. 3.
Taylor, Wood Oil Co. 1.
Houck, Wood Oil Co. 4.
J. M. Church, Wood Oil Co. 9.
Mattox hrs. Harrington & Norris 1.
Unknown, Younk, Sampson & Co. 1.
Fee, Glasgow O. & R. Co. 2.
Near Austin, Keyes & Co. 1.
Oscamp, Oscamp Dev. Co. 27.
Jones, Esslinger Oil Co. 6.
Near State Hatchery, Whitlock & Co. 1.
Carboomer, Kopel Oil Co. 1.
Nichols, Smith & Son 3.
Rigs, 0; wells drilling, 33; total, 33.

OWENSBORO DISTRICT

Wells Drilling

Owensboro—Chicago Petroleum Syn., Chicago Petroleum Syn. 2.
Jesse Swope, Pennsylvania-Indiana Oil Co. 3.
Col. Powers, Pennsylvania-Indiana Oil Co. 4.
Abe Howe, Pennsylvania-Indiana Oil Co 7.
Frank Bowman, Powers & Cornell 1.
R. Ellis, Central Southern Oil Co. 1.
J. S. Collier, Leeper Oil Co. 2.
James Johnson, Leeper Oil Co. 1.
S. Collier, Leeper Oil Co. 2.
J. A. Coombs, Patten & Co. 1.
Unknown, Randolph & Carson 1.
F. V. Miller, Pennsylvania-Indiana Oil Syn. 10.
J. S. Huff, I. N. Harkless 1.
O. T. Burdette, White & Nicklin 4.
T. F. Willis, unknown 1.
J. W. Smith, Panther Creek Oil Co. 8, 9.
C. H. Voyles, Wood Oil Co. 1.
W. F. Tyler, Wood Oil Co. 1.
H. S. McBrayer, White Plains Oil & Gas Co. 1.
Jim Ballard, Evansville Oil Corp. 1.
Rigs, 0; wells drilling, 21; total, 21.

CUMBERLAND-MONROE COUNTIES

Wells Drilling

Burkesville—Kim Crawford, Dayton Ohio Syn. 2.
Maude Blythe, M. L. Gartlan 4.
Bud Kerr, A. S. McClintock 9.
Mary Scott, Pete Coe 1.
Will Dowell, Atlantic Oil & Graves 2.
Vess Nun, Hook & Wise 1.
Melton, Wilcox Bros 1.
T. L. Bow, Freeman & McCormick 5.
C. A. Cheatham, Alta Oil Co. 5.
Hunter Short, Morris Pet. Co. 4.
Anderson, McClintock & Raydure 2.
Rigs, 0; wells drilling, 11; total, 11.

HOPKINS COUNTY

Wells Drilling

Nortonville—Near Earlington, Copper Flash Oil Co. 1.
Hellman, Copper Flash Oil Co. 9, 10.
Rigs, 0; wells drilling, 3; total, 3.

GRAYSON COUNTY

Wells Drilling

Leitchfield—Major, J. A. Beam, 1, 2.

RUSSELL COUNTY

Wells Drilling

Creelsboro—B. F. Leach, Carnahan Oil Co. 4.
N. Blesdee, Creelsboro Oil Co. 1.
Rigs, 0; wells drilling, 2; total, 2.

LOGAN COUNTY

Wells Drilling

Auburn—Jim Peart, Mulling & Reagle 8.

SIMPSON COUNTY

Wells Drilling

Franklin—Proctor, J. H. Thompson 1.
Hogan, Small & Sully 11.
Rigs, 0; wells drilling, 2; total, 2.

METCALF COUNTY

Rig

Edmonton—A. J. Thompson, T. Petty & Co. 2.

MEADE COUNTY

Well Drilling

Gaston—Eva Carrigan, W. S. Proper 1.

ADAIR COUNTY

Wells Drilling

Columbia—J. H. Morgan, Louisiana parties 1.
Guthrie, Louisiana parties 1.
Bledsoe, Louisiana parties 1.
Rigs, 0; wells drilling, 3; total, 3.

(EASTERN DIVISION)

WAYNE COUNTY

Wells Drilling

Monticello—W. T. Ashberry, J. H. Hatfield 4.
P. L. Harmon, J. C. Brommet 4.
Bridgman, Bowden & Co. 1.
Castillo, Rex Carpenter 1.
Bridgman, Spradlin & March 12.
S. Henninger, Illiken Oil Co. 2, 3.
N. H. Crofton, E. M. Shearer & Co. 14.
Upchurch, Head-Brown & Co. 4.
Dabney, Superior Oil Corp. 10.
Coffey, hrs. Bell & Bell 3.
G. W. Burnett, Smith, Leeper & Co. 13.
Burnett hrs., D. C. Adkisn 2.
T. T. Davis, Vuncan Oil Co. 15.
H. Thompson, W. M. Nack 1.
J. A. Brown, Dillion, Marsh & Shearer 5, 6, 7.
L. N. Morrow, Beaver Pet. Co. 12.
Rigs, 0; wells drilling, 19; total, 19.

WOLFE COUNTY

Wells Drilling

Devil Creek—Roberts, Atlantic Oil Producing Co., 4, 5.

JACKSON COUNTY

McKee—Upchurch Bros. 2.

BOYD COUNTY

Well Drilling

Summitt—Near Ashland, Sam J. De Berd 2.

McCREARY COUNTY

Well Drilling

Stearns Coal Land, Brown & Co. 3, 4.

ESTILL COUNTY

Wells Drilling

Irvine—Isaac Henry, unknown 1.
Puckett hrs., Superior Oil Co. 2.
A. Isaac, Miller, Bosworth & Chiles 1.
Rigs, 0; wells drilling, 3; total, 3.

BREATHITT COUNTY

Rig

Jackson—Near Quicksand, Dukate & Co. 3.

Well Drilling

Jackson—Near Quicksand, Dukate & Co. 2.

LEE-OWSLEY COUNTIES

Wells Drilling

Idamay—Logan Coombs Combs Bros. 1.
Jack Evans, Combs Bros. 2.
Elmer Evans, Combs Bros. 4, 5.
Gourley-Remadn-McGuire, Black Gum Oil Syn. 15, 16.
Widow Porter, Hupp & Duff 5
Mays, Hupp & Duff 2.
Huntington, Kentucky-Indiana Oil Syn. 6.
Daniels-Foreman, Henry Oil Co. 4.
New Era Land Co., D. J. Johnson 3.
Burns, Gross & Faston 1.
Hignett, Benton & Co. 1.
Bert Lynch, Petroleum Ex. 1.
Addison hrs., Petroleum Ex. 1.
J. D. Smythe, Superior Oil Corp. 4.
Rigs, 0; wells drilling, 16; total, 16.

LAWRENCE-JOHNSON COUNTIES

Rigs

North Weir—J. J. Skaggs, Cumberlaid Pet. 4.
W. E. Skaggs, Hovis & Young 3.
C. Osborne Skaggs, Miller & Co. 1.
J. J. Gambill, Union Gas & Oil Co. 29.
Wm. Lester, Union Gas & Oil Co. 10.

Wells Drilling

North Weir—Robert Fyfee, Pluto Oil Co. 6.
Sparks, Carter Oil Co. 1.
W. M. Ross, S. E. Lehman 3.
J. D. Bond, J. T. Hare & Son 3.
Ira Letner, Wm. Stone & Co. 10.
Jesse Rose, Indian-Tex Pet. Co. 11.
L. T. Sparks, Garrison & Townsend 6.
J. N. Sparks, Garrison & Townsend 4, 5.
C. K. Dobyne, Garrison & Townsend 18.
J. C. Gilliam No. 2 Indian-Tex Pet. Co. 12.
J. M. Sparks, Holland & Wade 1.
L. P. Ferguson, Union Gas & Oil Co. 10.
C. E. Frailey, Union Gas & Oil Co. 7.
Caney Sparks, Union Gas & Oil Co. 8.
R. N. Sparks No. 1, Union Gas & Oil Co. 3.
Sanford Lyon, Union Gas & Oil Co. 24.
Jesse Lyon, Kenton O. & G. Co. 30.
Rigs, 6; wells drilling, 18; total, 24

JOHNSON-MAGOFFIN COUNTIES

Rigs

South Weir—W. H. Collins, Petroleum Exploration 3.
Eliza Powers, Clyde Oil Co. 6.

Wells Drilling

South Weir—Wm. Prater, Structure Oil Co. 10, 11.
L. C. Bailey, Cumberland Pet. Co. 41.
Abe Caudill, Petroleum Exploration 36, 37, 35.
W. S. Adams, Petroleum Exploration 27.
Dan Harmon, Paintsville Oil Co. 6.
Bailey hrs., Diamond Oil Co. 6.
J. H. Gardner, New Domain O. & G. Co. 12.
Oscar Wheeler, Hudson & Collins 3.
W. P. Adams, Oliver & Jenkins 7.
W. H. Conley, Bed Rock Pet. Co. 29.
Jess Borders, Oliver & Jenkins 3.
Jas Love, Somerset Oil Co. 9, 10.
Sam Blanton, R. G. Gillispie, 16, 17.
F. M. Moore, R. G. Gillispie, 6.
Martha Conley, Oliver & Jenkins 13.
Coon Adams, Oliver & Jenkins 1.
H. H. May, Short Fork Dev. Co. 7.
Jess Adams, Model Oil Co. 4.
F. M. Tackett, M. A. Wheeler 1.
Allek Holbrook & Co. 1.
William Howard, Virginia Gasoline Co. 2.
J. M. Frazier, Short Fork Dev. Co. 2.
Julia Sayler, Kentucky-Indiana Oil Co 4.
Wm. Sayler, Carter Oil Co. 2.
Harry Patrick, Bed Rock Pet. Co. 1.
Harris Howard, Carter Oil Co. 1.
J. H. Arnett, J. H. Arnett 12.
Spurlock, Atlantic Oil Prod. Co. 1.
Unknown, Fych Oil & Gas Co. 2.
Rigs, 2; wells drilling, 35; total, 37.

FLOYD COUNTY

Wells Drilling

Beaver Creek—T. Collins, Yolondo Oil Co. 3.
Wm. Martin, New Domain O. & G. Co. 8.
H. D. Martin, Ohio Fuel Oil Co. 2.
M. Martin, Ohio Fuel Oil Co. 2.
Tandy Martin, Louisville G. & E. Co. 3.
Mary Martin, Louisville G. & E. Co. 3.
Jake Osborne, Distell-Martin O. & G. Co. 2.
Manda Cooley, Eastern Carbon Black Co. 2.
Summitt area, American Roller Mills 13.
Rigs, 0; wells drilling, 9; total, 9.

GREENUP COUNTY

Rigs

Greenup—Grassy Creek, Foreman & Co. 1, 2.

Wells Drilling

Greenup—J. C. Roberts, Tom Hays 1.
Iron Creek, unknown parties 1.
Robertson, Adams & Caudill 1.
Tygert Creek, Browning & Son 1.
Rigs, 2; wells drilling, 4; total, 6.

MARTIN COUNTY

Wells Drilling

Inez—Alfred Carter, Big Derby O. & G. Co. 2.
Mayo properties, Beehard & Ralph 5.
Rigs, 0; wells drilling, 2; total, 2.

MORGAN COUNTY

Wells Drilling

West Liberty—Goose, Blue Hills Dev. Co. 4.
Elk Fork, Petroleum Ex. 1.
Limits of West Liberty, Burns O. & G. Co. 1.
Near Moon, unknown 1.
W. H. Bailey, Wallace, Bailey & Co. 1.
Unknown, Mid South Oil Co. 1.
Reed, Collier & Co. 1.
Near West Liberty, Jim Patton 1.
Rigs, 0; wells drilling, 8; total, 8.

ELLIOTT COUNTY

Well Drilling

Middle Fork—Jeff Williams, Mid South 1.

TENNESSEE

CLAY-JACKSON COUNTIES

Rigs

Gainesboro—Hamp Lynn, Dafoe & Co. 5.
Williams, Dafoe & Co. 6.

Wells Drilling

Gainesboro—Draper, Dafoe & Co. 3.
Spivey, Edenfield & Co. 1.
Brown, White Plains O. & G. Co. 1.
Marcum, Young & Young 1.
Hammon, Ackerman & Co. 1.
D. C. Mitchell, Reape & Co. 1.
Orgathorpe, Dafoe & Co. 1.
Draper, Rex & Pyramid 2.
Arms, Young Oil Co. 1.
T. Hogan, McClintock, Reid & Heckathorne 1.
Rigs, 8; wells drilling, 10; total, 18.

MORGAN COUNTY

Wells Drilling

Sunbright—Near Sunbright, Bonecamp Oil Co. 1.
Fee, Russell Dev. Co. 2.
Widow Ellis, Russell Dev. Co. 1.
Fee, Sunbright, Oil Co. 1.
S. Galloway, Louisa Co. 1.
Mill Springs, Toomey, Phelps & Co. 1.
Enright, Ensigner Syn. 1.
Griffith, Indiana parties 1.
Unknown, Knoxville parties 1.
Rigs, 0; wells drilling, 9; total, 9.

FENTRESS COUNTY

Wells Drilling

Pall Mall—Wolfe Creek, Phelps, Toomey & Anderson 1.
Alvin York, Pat Smith 1.
Tan Bark, Tennessee Stave & Lumber Co 1.
Rigs, 0; wells drilling, 3; total, 3.

PUTNAM COUNTY

Well Drilling

Cookeville—Double Springs, Clark & Co. 2.

DICKSON COUNTY

Rig

Dickson—5 miles south of Dickson, Oliver & Co. 1.

DE KALB COUNTY

Rigs

Liberty—Unknown, local parties 1.
4 miles from Liberty, M. B. Williams 1
Rigs, 2; wells drilling, 0; total, 2.

FAYETTE COUNTY

Rigs

Sommerville—Joe Perry, M. A. Strickland 1

HARDEMAN COUNTY

Well Drilling

Bolivar—Brown Sane, Spring Valley O. & G. Co. 1.

RANKIN COUNTY

MISSISSIPPI

Rig

Jackson—Pearl River District, New York parties 1.

Well Drilling

Jackson 7-3-2—Finkbine Lumber 1.

HOLMES COUNTY

Well Drilling

Coxburg 18-13-1—Free Run 1.

SCOTT COUNTY

Well Drilling

Forest 21-6-8—Graham, Mississippi Oil & Gas Syn. 1.

CLAIBORNE COUNTY

Wells Drilling

Port Gibson 5-11-2—Bill Young, Mississippi Exploration 1.
Wells drilling, 2.
6-11-1—Westside, Michael Zink 1.

HINDS COUNTY

Well Drilling

Jackson 25-6-1—Mrs. Reeder, Jackson Oil 1

WASHINGTON COUNTY

Well Drilling

Glen Allen 30-14-9—Williams, Alhambra Oil & Gas 1.

TISHIMINGO COUNTY

Well Drilling

Iuka—Unknown parties 1.

TALLAHATCHIE COUNTY

Well Drilling

Charleston 23-25-2—Harvey, Shreveport parties 1.

MARSHALL COUNTY

Well Drilling

Holly Springs 33-2-3—Huffman, Tom B Slick 2.

UNION COUNTY

Rig

New Albanq—10 miles northeast of New Albany, Jean DeVilliard 1.

ALABAMA

MORGAN COUNTY

Well Drilling

Albany 6-6-4—J. English, Albany-Decatur Oil 1.

BALDWIN COUNTY

Well Drilling

Bay Minette 21-2-2—R. A. Evans, Stoll & Co. 1.

SUMPTER COUNTY
Well Drilling
Corptopa—Sam W. Kendall 1.
HALE COUNTY
Well Drilling
Greenburg, Hale Oil Co. 1.
SHELBY COUNTY
Well Drilling
Chelsea—Scott, Cookrey & Co. 1.
WILCOX COUNTY
Well Drilling
Selma—Blue Belle Oil 1.
CLARKE COUNTY
Wells Drilling
Columbia—Intercoastal Oil 1.
Keoughan Oil 1.
Wells drilling, 2.
MADISON COUNTY
Well Drilling
Huntersville—Florida-Georgia Oil 1.
LAWRENCE COUNTY
Rig
Moulton—Tulsa parties 1.

ALABAMA
PULASKI COUNTY
Rig
Hawkensville—Florida-Georgia Cons. 1.
JEFF DAVIS COUNTY
Well Drilling
Hazelhurst—Mid Georgia Oil 1.
TELFAIR COUNTY
Well Drilling
Scotland—Telfair Oil 1.
BURKE COUNTY
Well Drilling
Green Cut—Three Creek Oil 1.
WHITFIELD COUNTY
Well Drilling
Dalton—Richardson Oil & Gas 1.

SOUTHWEST TEXAS

MISCELLANEOUS
Atascosa County—
Rigs
Cortina, Rio Bravo Oil 2.
Brown, Rio Bravo Oil 1-B.
Wells Drilling
McAda, M. O. & G. Co. 1.
Peeler, Gilliam et al 1.
Rigs
Bexar County—
Gembler, Gravburg Oil 1.
Monehacha, Humble Oil & Ref. 1.
Coreth, Humble Oil & Ref. 1.
Wells Drilling
Casanova, Bridges et al 1.
Cassin, Humble Oil & Ref. 1.
Cantu, Humble Oil & Ref. 3.
Wells Drilling
Bee County—
Lucas, Dixie-French 1.
Scott, Clark et al 1.
Weeder, Ross et al 1.
Rigs
Bastrop County—
——, Currie et al 1.
Fitzsimmons, Burt & Griffith 1.
Smith, Quaker Oil 1.
Wells Drilling
Ott, Cardinal Oil 1 (sd.)
Nichols, Nelson & Doring 1.
Spooner, Alexander & Lytle 1 (sd.).
English, Bristol Oil & Gas 2.
Korlauck, F. M. Dent 1 (sd.).
Freytag, J. H. Gray 1.
Lottman, Corry Pet. 1 (sd.).
Rigs
Caldwell County—
——, Magnolia Pet. 2.
Wells Drilling
Schewe, Payne & Bond 1.
Schroder, Williford et al.
Holmes, Williford et al 1.
Wells Drilling
Dewitt County—
Halsfelt, Cureo Oil & Gas 1.
——, Yoro Oil 1.
Rig
Frio County—
Dicken, Frio O. & G. 1.
Well Drilling
Blackaller, Lefevre & Storey 1.
Well Drilling
Goliad County—
Weeds, Houston Oil 1.
Rigs
Gonzales County—
Sherele, Greer et al 1.
Moore, R. M. Bleave 1.
Well Drilling
Voight, Gonzales Oil & Gas 1
Rigs
Guadalupe County—
Nolte, Atlantic Oil Prod. 1.
Vetter, Scrivner et al 1.
Wells Drilling
House, J. M. Davis 1.
Lenz, McClannahan 1.
Fulshear, York Creek Oil 1. (dpng.).
Williams, Howell Bros. 1.
Bailey, Barnum et al 1.
Rig
Jim Hogg County—
Block 8, Daniels & English 1.
Wells Drilling
Jennings, The Texas Co. 1.
Palacios, Pippin et al 2 (sd.).
Well Drilling
Karnes County—
Near Runge, E. B. Reynolds 1 (sd.).
Rig
Live Oak County—
Miller, Texas Pacific C. & O. 2.
Wells Drilling
Regan, The Texas Co. 3.
Miller, Texas Pacific C. & O 2, (sd.).
Collins, Texas Pacific C. & O. 1, (sd.).
Freeman, Texas Pacific C. & O. 2.
Cartwright, Houston Oil 8, 9.
Wells Drilling
McMullen County—
Shriner, San Bolt Oil 3.
Tips, Glass & Fallin 1.
Tips, Coquet 1.
——, Powell et al 1.
Wells Drilling
Medina County—
Blackburn, Ina Oil 1.
Wilson, Eastham & Tarver 2.
Nixon, Commodore Oil 1.
Haby, Mid-Kansas Oil & Gas 1 (sd.).
Whipff, Amy Oil 1.
Rothe, Calif-Medina Oil 1.
——, Medina Oil, 1 (sd.).
Rig
Maverick County—
Chittin, Rycade Pet. 1.
Wells Drilling
Milam County—
Kime, Magnolia Pet. 1.
Phillips, J. E. Lee 1.
Brown, Eagle Drg. Co. 1.
Schroder, Roy Long 1.
Well Drilling
McLellan County—
Willis, D. J. Lynch 1.
Rigs
Starr County—
——, Hadley and Barnes 1.
——, Bryant et al 1.
Well Drilling
——, Mercedes Oil & Gas 3, (sd.).
Rig
Travis County—
Lettig, Mahome et al 1.
Well Drilling
Victoria County—
Near Raisins, Moody Gulf Gas 1.
Rigs
Williamson County—
Diebel, Guillen & Smith 1.
N. of Thrall, Forward & Co. 1.
W. of Coupland, Jim Harper 1.
Wells Drilling
Ryals, Gulf Prod. 1.
Schramm, G. S. & J. Oil 1.
E. of Coupland, Plateau Oil 1.
Rig
Wilson County—
Denning, R. M. Blackie 1.
Well Drilling
Hoover, Garrett et al 1.
Rig
Zavalla County—
Pryor, Hadley & Harmon 1.
Wells Drilling
Pryor, Continental Oil 1.
Pryor, Old Dominion Oil 1.
Rigs, 21; wells drilling, 53; total, 89.
Well Drilling
Angelina County—
Henderson, Ferd Heinz 3, (sd.).
Rigs
Brazoria County—
Russell, Gayle et al 3.
Chester, Bryan Production 3.
Wells Drilling
Tolar, Taylor et al 1 (sd.).
Danneabum, Stratton Ridge O. & G. 13 (sd.)
Rigs
Chambers County—
Jackson, Humble Oil & Ref. 1-A.
Smith, J. C. White 1.
Wells Drilling
Fisher, C. T. Rucker 1, (sd.).
NE of Anahuac, Ott et al 3.
Myers, Roxana Pet. 1.
Hankamer, W. C. Moore 1.
Borden, Barton et al 1.
Rigs
Duval County—
Walsh, Humble Oil & Ref. 4.
Luby, The Texas Co. 1.
Peters, Booth et al 1.
Wells Drilling
Walsh, Humble Oil & Ref. 3.
Singer, Humble Oil & Ref. 5.
Pusch, Humble Oil & Ref. 1 (sd.).
Peters, United States Oil 1.
Singerton, Associated Oil 1.
Coaling, Gulf Prod. 1.
Gravis, Texas-Gulf Sulphur 1.
Piedras Nigras, Abercrombie et al 1 (sd.).
Benavidas, O. W. Killiam 4.
Rigs
Fort Bend County—
Wayteck, Humble Oil & Ref. 1.
Wells Drilling
Beasley, Neiland Oil 1 (sd.).
Moore, Gulf Prod. 5.
F. Meier, Rycade Pet. 2.
J. Meier, Rycade Pet. 2.
Nash, Rycade Pet. 5.
Armstrong, Texas Co. 1.
Moore, Marland Oil Co. 1.
Well Drilling
Grimes County—
Dodd, McClausland & Rassmussen 1. (sd.).
Wells Drilling
Hardin County—
Hawley, Texas Little Farms Assn. 1.
Jones Prairie, Hooks et al 2.
Rigs
Harris County—
Blanco, Humble Oil & Ref. 1.
Little, York, Kelly et al.
Little, York, Phillips et al 1.
Katter, Katter Bros. 2.
Wells Drilling
Westheimer, Retreive Oil 1.
Hockley Dome, The Texas 2, 5.
Hillendahl, R. E. Brooks, Jr., 1. (sd.).
Hunter, Wright et al 2.
Harvey, Baldwin et al 1.
Gaines, La Porte Oil 1.
San Jacinto, Kane Prod. 2 (sd.).
Norsworthy, Rycade Pet. 1.
Green, The Texas Co. 4.
Hunt, Brooks & Owen 1 (sd.).
Jefferson County—
Rig
Westbury, Port Arthur Dev. 4.
Wells Drilling
Fannette, Gulf Prod. 3.
Big Hill Dome, Crow, Houston Oil 1.
Staiti, Big Hill, Houston Oil 7 (sd.).
Wilson, Paggi Oil 2 (sd.).
Dawes, Houston Oil 3.
Wells Drilling
Jackson County—
Seliner, Vanderbilt Pet. 1.
Putnam, Jackson County Synd. 1.
Reed, Jackson County Synd. 1.
Ryers, Houston Oil 1.
Wells Drilling
Jaspar County—
1 mile south of Guest, Humble Oil & Ref. 8.
W. of Jasper, Lenz et al 2.
Wells Drilling
Kleberg County—
Kleberg, Humble Oil & Ref. 1.
Wells Drilling
Liberty County—
Seaberg, near Cleveland, Liberty Prod. 1.
Wells Drilling
Montgomery County—
Hall, near Willis, L. F. Sprague 2.
Wells Drilling
Matagorda County—
Craig, Gulf Prod. 2.
Hawkins Shepherd Dome Oil 1.
Newton County—
South end county, Humble Oil & Ref. 3. 4 (formation tests).
Wells Drilling
Nacogdoches County—
Mast, P. M. Rideout 3.
W. G. Wells, Inc. 1.
Wells Drilling
Orange County—
Stark, Republic Prod. 2, (sd.)
Duhig, Humble Oil & Ref. 2.
Rig
Refugio County—
Rooke, Houston Oil 3.
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Lamber, Refugio Oil & Gas 1, 2.
Rook, Houston Oil 2, 5.
Well Drilling
San Jacinto County—
——, C. O. Fleming, 1 (sd.).
Wells Drilling
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Huster, Moody Gas Co. 1.
——, John Sigmund 5.
Wells Drilling
Shelby County—
Shoat, Crusader Oil 1.
Crawford, Collette & O'Keefe 1.
Ashberry, Dewitt & Daniels 1.
Rigs
Waller County—
——, Hempstead Oil 1.
Dodd, G. M. Gordon 1.
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Dodd, Bettis et al 1 (sd.).
Patteson, Newman Co. 1.
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Rigs
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Johnson Bayou, Roxana Pet. 1.
Hackberry, Yount-Lee Oil 6.
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Hackberry, Yount-Lee Oil 5.
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W. of Lake Charles, Pure Oil 1.
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N. of Lake Charles, Humble Oil & Ref. 3, 4 (formation).
Hooks, Rycade Pet. 1.
Sec. 14, Poole et al.
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——, Humble Oil & Ref. 1-A, 2-A (formation).
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Chapping, Denman et al 1.
Ross, E. A. Cordit 1.
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Lawney, Ville Platte Oil 2.
Wells Drilling
Sabine Parish—
Bowman, Emiet Oil 2.
Wyatt, Toro Oil 1.
Rigs, 2; wells drilling, 78; total, 99.

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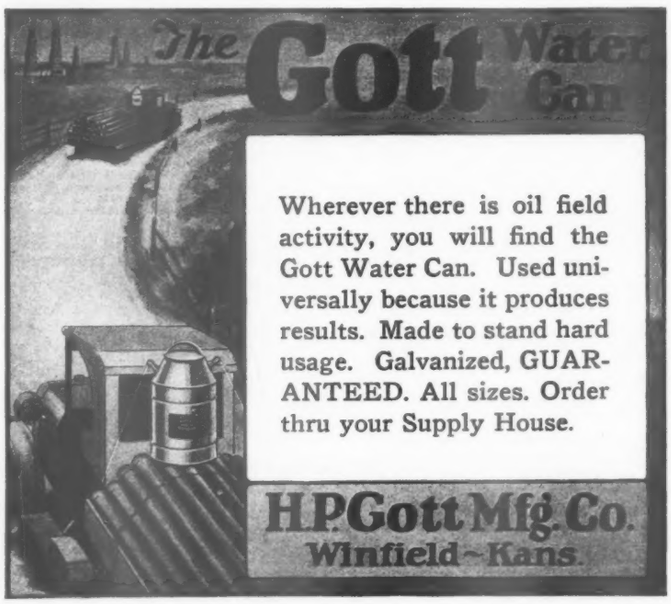
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WHAT AND WHERE TO BUY

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Gas Regulators—
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Davis Regulator Co.
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Grey Iron Castings (See Castings)

H

Hammers—Chipping and Calking Pneumatic—
Chicago Pneumatic Tool Co.

Hammers—Riveting, Pneumatic—
Chicago Pneumatic Tool Co.

Hatches—Gauge and Thief—
Oil Conservation Engineering Co.

Heat Exchangers—
Carbondale Machine Co.
Griscom-Russell Co.
Hope Engineering & Supply Co.
Newton Process Mfg. Co.

Heat Interchangers—Fluid—
Braun, C. F. & Co.

Heat Treatment for Cleaning Out Flow Lines, Tanks, Etc.—
Berwald Chemical Co.

High Pressure Gate Valves (See Valves—

Hoists—Pneumatic, Geared and Universal—
Chicago Pneumatic Tool Co.
Yale & Towne Mfg. Co.

Hoists—Portable—
Wright Mfg. Co.
Yale & Towne Mfg. Co.

Hose—
Fenwick-Reddaway Mfg. Co.

Hose—Drillers—
Goodrich, B. F., Rubber Co.

Hose—Oil Suction and Discharge
Goodrich, B. F., Rubber Co.

Hose—Rubber—
Goodyear Tire & Rubber Co.

Hot Rolled Strip Steel (See Steel)

Hydraulic Gate Valves (See Valves)—

Hydraulic Jacks (See Jacks)—

I

Insulation Materials—
Celite Products Co.
Johns-Manville, Inc.

Insurance—Fire—
Oil Insurance Ass'n

Insurance—Tornado—
Oil Insurance Ass'n

J

Jacks—Hydraulic—
Bridgeport Machine Co.

Jacks—Lifting—
Templeton, Kenly & Co., Ltd.

Jacks—Pumping—
American Well Works
Bessemer Gas Engine Co.
Braden Co.
Frick-Reid Supply Co.
Jones, S. M. Co.
Kansas City Hay Press Co.
Spang & Co.

Jars—
Bridgeport Machine Co.
Spang & Co.

Jar Steel—
Heppenstall Forge & Knife Co.

K

Kerosene—
Acme Petroleum Co.
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.

L

Lacquers—
Sherwin-Williams Co.

Lanterns—Electric—
Delta Electric Co.

Lanterns—Hand—
Delta Electric Co.

Lead and Mixed Metal Products—
Eagle Picher Lead Co.

Lead in Oil—
Eagle Picher Lead Co.
National Lead Co.

Lead Wool and Containers—
Eagle Picher Lead Co.

Lifting Jacks (See Jacks)—

Lighting Equipment—
Climax Engineering Co.
Pyle-National Co.
Westinghouse Electric & Mfg. Co.

Liquid Level Controls (See Controllers)—

Litharge—
Eagle Picher Lead Co.
National Lead Co.

Loaders—Trucks—
Barber-Greene Co.

Long Distance Telephone—
American Telephone & Telegraph Co.

Lubricating Devices—
McCord Radiator & Mfg. Co.

Lubricating Oils (See Oils)—

Lubricators—
Ajax Iron Works

Lubricators—Force Feed—
Manzel Brothers Co.
McCord Radiator & Mfg. Co.

M

Machine Tools—
Ryerson, Jos. T., & Sons, Inc.

Manholes—Tank—
Oil Conservation Engineering Co.

Manifolds—
Reid, Joseph, Gas Engine Co.

Metal Buildings Sectional (All Types) (See Buildings)—

Meters—Gas—
Foxboro Co., Inc.
Metric Metal Works
Pittsburgh Meter Co.
Roots, P. H. & F. M. Co.
Westcott & Greis

Meters—Gasoline—
Pittsburgh Meter Co.

Meters—Oil—
Pittsburgh Meter Co.

Molded Goods—Rubber—
Goodyear Tire & Rubber Co.

Motor Controlled Apparatus (See Apparatus—Motor Control)—

Motors—Electric—
Fairbanks-Morse & Co.
Westinghouse Electric & Mfg. Co.

Motors—Gasoline (See Engines—Gasoline)—

Motor Trucks (See Trucks)—

N

Naphtha—
Pure Oil Co.

Natural Gasoline (See Gasoline—Natural)—

Natural Gasoline Plant Equipment
American Tank Co.
Chaplin-Fulton Mfg. Co.
Continental Supply Co.
Cooper, C. & G. Co.
Griscom-Russell Co.
Roots, P. H. & F. M. Co.
Smith Separator Co.
Westcott & Greis

Nitrogen—
Linde Air Products Co.

O

Oil and Gas Pipe Line Construction—
Hope Engineering & Supply Co.

Oil Burners (See Burners—Oil)—

Oil Engines, Semi-Diesel (See Engines—Semi-Diesel Oil)—

Oil Field Equipment—
Baash-Ross Tool Co.
Baker Casing Shoe Co.
Bridgeport Machine Co.
Continental Supply Co.
Cunningham Co.
Gaso Pump & Burner Mfg. Co.
International Derrick & Equipment Co.
Iron King Mfg. Co.
Kaw Boiler Works Co.
National Supply Co.
Parkersburg Machine Co.
Parkersburg Rig & Reel Co.
Reed Roller Bit Co.
Regan Forge & Engineering Co.
Reid, Joseph, Gas Engine Co.
Republic Supply Co.
Trumble Gas Trap Co.

Oil Filters—
Burt Mfg. Co.

Oil—Fuel—
Acme Petroleum Co.
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.
Sinclair Refining Co.
The Texas Co.

Oil—Gas—
Acme Petroleum Co.
Gulf Refining Co.
Pure Oil Co.
Sinclair Refining Co.
The Texas Co.

Oil—Lubricating—
Barnsdall Refining Co.
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pennzoil Co.
Pure Oil Co.
Sinclair Refining Co.
The Texas Co.

Oil—Tractor—
Barnsdall Refining Co.
Gulf Refining Co.
Pennzoil Co.
Pure Oil Co.

Oiling Devices—
Lunkenheimer Co.

Oil Meters (See Meters)—

Oil Piping Equipment (See Fittings)—

Oil Reclaiming Process—
Barnickel, Wm. S. & Co.
Houston Pump & Supply Co.

Oil Refinery Equipment (See Refinery Equipment)—

Oil Savers—
Arbon, Paul, & Co.
Oil Well Improvements Co.

Oil Securities (See Securities)—

Oil Suction and Discharge Hose (See Hose)—

Oil Testing Instruments—
Tagliabue, C. J., Mfg. Co.

Oil Well Cementing—
Halliburton, Erle, P.

Oil Well Screens (See Screens)—

Oil Well Tools—
Dunn Mfg. Co.
Hinderliter Tool Co.
Reed Roller Bit Co.
Star Drilling Machine Co.
Titusville Forge Co.
U. S. Tool Co.

Over Shots—
Reed Roller Bit Co.
Regan Forge & Engineering Co.

Oxygen—
Linde Air Products Co.

P

Packer Release—
Acme Fishing Tool Co.

Packers—
Goodyear Tire & Rubber Co.
Guiberson Corp.
Larkin & Co.
Layne & Bowler Co.
Oil Well Supply Co.
Regan Forge & Engineering Co.
Spang & Co.

Packing—
Black, Sivalls & Bryson, Inc.
Garlock Packing Co.
Goodrich, B. F., Rubber Co.
Imperial Belting Co.
Johns-Manville, Inc.

Paints—
Aluminum Co. of America
Continental Supply Co.
Cook Paint & Varnish Co.
Detroit Graphite Co.
Eagle Picher Lead Co.
Sherwin-Williams Co.

Paraffin Wax Plant Equipment—
Carbondale Machine Co.

Pipe—Cast Iron—
American Cast Iron Pipe Co.
Continental Supply Co.
Greenspon's, Jos., Sons Iron & Steel Co.
International Supply Co.
U. S. Cast Iron Pipe Fdy. Co.

Pipe—Lead Chemical and Antimonial—
Eagle Picher Lead Co.

Pipe—Steel—
Jarecki Mfg. Co.
Kellogg, M. W. Co.
National Supply Co.
National Tube Co.
Republic Iron & Steel Co.
South Chester Tube Co.
Spang, Chalfant & Co., Inc.
Superior Tube Co.

Pipe—Wrought Iron—
Frick-Reid Supply Co.
Oil Well Supply Co.
Reading Iron Co.
Superior Tube Co.

Pipe and Nipple Threading Machines—
Bignall & Keeler Machine Wks.
Landis Machine Co.
Standard Engineering Co.

Pipe Clamps (See Clamps—Pipe)

Pipe Fittings (See Fittings)—

Pipe Grips—
Larkin & Co.

Pipe Headers—
National Tube Co.
Newton Process Mfg. Co.

Pipe Line Construction Tools—
National Transit Pump & Machine Co.

Pipe Line Ditchers (See Ditchers)

Pipe Line Equipment—
Gaso Pump & Burner Mfg. Co.

Pipe Screwing Machines—
Buckeye Traction Ditcher Co.

Pipe Threading Dies (See Dies)—

Pipe Tools—
Armstrong Brothers Tool Co.
Nye Tool & Machine Works

Piping—Fabricated—
Kelly & Jones Co.
Midwest Piping & Supply Co.

Piping—Steel and Iron—
Crane Co.
Power Piping Co.
United Iron Works

Pistons—
Guiberson Corp.
Heppenstall Forge & Knife Co.

Pistons—Expansion—
Wilson Oil Tools Corp.

Pistons—Slush Pump—
Arbon, Paul & Co.
Guiberson Corp.

Plain End Pipe Couplings (See Couplings—Plain End Pipe)

Plugs—Bottom Water—
Guiberson Corp.

Polish Rods (See Rods—Polish)—

Portable Drilling Rigs (See Rigs)

Power Fuller—
Jones Oil Well Reamer Co.

Power Pumps (See Pumps)—

Power Units—Portable (See Engines)—

Pre-Heaters—
Newton Process Mfg. Co.

Pulleys—Casing—
Bridgeport Machine Co.

Pulleys—Friction Clutch—
Havana Mfg. Co.

Pulling Machines—
Iron King Mfg. Co.
National Supply Co.
Safety Pulling Machine Co.

Pumping and Pulling Motors—Electric—
Westinghouse Electric & Mfg. Co.

Pumping Equipment—
American Well Works
Axelson Machine Co.
Goulds Mfg. Co.
Jones, S. M., Co.
Myers, F. E., Bro. & Co.
Oil Well Supply Co.
Prescott Co.
Waukesha Motor Co.

Pumping Hangers—
Bridgeport Machine Co.

Pumping Jacks (See Jacks)—

Pumping Gears Units—
Nuttall, R. D. & Co.

Pumping Powers—
Aldrich Pump Co.
Barnes Mfg. Co.
Bessemer Gas Engine Co.
Buda Co.
Climax Engineering Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
Kansas City Hay Press Co.
National Supply Co.
Oil Well Supply Co.
Pattin Brothers Co.
Reid, Joseph, Gas Engine Co.
Spence Machine Co.
Titusville Iron Works Co.

Pumps—Air Lift—
Ingersoll-Rand Co.

Pumps—Boiler Feed—
Ajax Iron Works
Fairbanks-Morse & Co.
Gardner Governor Co.
Worthington Pump & Machinery Corp.

Pumps—Centrifugal—
American Well Works
Dean Hill Pump Co.
Fairbanks-Morse & Co.
Worthington Pump & Machinery Co.

Pumps—Direct Driven—
Aldrich Pump Co.
Bessemer Gas Engine Co.

Pumps—Electric
Prescott Co.

Pumps—Fuel Oil Service—
Aldrich Pump Co.
Blackmer Rotary Pump Co.

Pumps—Fuel Oil Transfer—
Aldrich Pump Co.

Pumps—Gear Driven—
Aldrich Pump Co.
Gaso Pump & Burner Mfg. Co.

Lucey Mfg. Corp.
Prescott Co.

Pumps—Pipe Line—
Aldrich Pump Co.
Frick-Reid Supply Co.
Gardner Governor Co.
National Transit Pump & Machine Co.
Prescott Co.
Worthington Pump & Machinery Corp.

Pumps—Power—
Aldrich Pump Co.
Dean Brothers Co.
Fairbanks-Morse & Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Myers, F. E., Bro. & Co.
National Transit Pump & Machine Co.
Novo Engine Co.
Prescott Co.
Waukesha Motor Co.
Worthington Pump & Machinery Corp.

Pumps—Refinery—
Aldrich Pump Co.
Dean Hill Pump Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Kinney Mfg. Co.
National Transit Pump & Machine Co.
Worthington Pump & Machinery Corp.

Pumps—Rotary—
Blackmer Rotary Pump Co.
Roots, P. H. & F. M., Co.

Pumps—Sand—
Bridgeport Machine Co.
Larkin & Co.

Pumps—Slush—
Gardner Governor Co.

Pumps—Steam—
Dean Brothers Co.
Fairbanks-Morse & Co.
Frick-Reid Supply Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Lucey Mfg. Corp.
National Transit Pump & Machine Co.
Presco H. Co.
Vogt Brothers Mfg. Co.

Pumps—Suction—
Gaso Pump & Burner Mfg. Co.

Pumps—Vacuum—
Bessemer Gas Engine Co.
Clark Brothers Co.
Gaso Pump & Burner Mfg. Co.
Miller Improved Gas Engine Co.
Roots, P. H. & F. M., Co.
Worthington Pump & Machinery Corp.

Pumps—Water—
Aldrich Pump Co.
American Well Works.
Gaso Pump & Burner Mfg. Co.
Presco H. Co.

R

Ratchet Pipe Cutters—
Toledo Pipe Threading Machine Co.

Ratchet Pipe Threaders—
Toledo Pipe Threading Machine Co.

Ratchet Stocks and Dies—
Toledo Pipe Threading Machine Co.

Ratchet Wrenches (See Wrenches)

Reamers—
Bridgeport Machine Co.
Jones Oil Well Reamer Co.

Receiving Boxes—
Reid, Joseph, Gas Engine Co.

Recorders—Differential Pressure—
Metric Metal Works

Refinery Equipment—
American Radiator Co.
Braun, C. F. & Co.
Carbondale Machine Co.
Chicago Bridge & Iron Works
Graver Corp.
Griscom-Russell Co.
Kaw Boiler Works Co.
Kellogg, M. W. Co.
Newton Process Mfg. Co.
Power Piping Co.
Power Specialty Co.
Ross-Meehan Foundries
Reid, Joseph Gas Engine Co.
Smith Separator Co.
Universal Oil Products Co.
Vogt, Henry, Machine Co.
Walsh & Weidner Boiler Co.
Westcott & Greis

Refinery Pumps (See Pumps)—

Refractories—Furnace, Stills and Baffles—
Botfield Refractories Co.

Refrigerating Machinery—
Carbondale Machine Co.
Climax Engineering Co.
Vogt, Henry, Machine Co.

Regulators—
Fisher Governor Co. Inc.
Oil Conservation Engineering Co.
Smith Separator Co.

Rental Service—
Bridgeport Machine Co.

Reversible Clutches—
Bessemer Gas Engine Co.

Rig Irons—
Bradford Rig & Reel Co.
International Supply Co.
Lucey Mfg. Corp.
National Supply Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.

Rigs—Drilling, All Steel—
Carnegie Steel Co.
International Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Rigs—Portable Drilling—
National Supply Co.
National Turnbuckle Derrick Co.
Star Drilling Machine Co.

River Clamps (See Clamps)—

Rods—Polish—
Bradford Motor Works
Jones, S. M., Co.

Rods—Pull—
Axelson Machine Co.
Columbus Sucker Rod Co.
Jones, S. M., Co.
Kansas City Bolt & Nut Co.

Rods—Sucker—
Axelson Machine Co.
Columbus Sucker Rod Co.
D. & B. Pump & Supply Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
Kansas City Bolt & Nut Co.
National Supply Co.
Republic Supply Co.

Rods—Valve—
Jones, S. M., Co.

Roofing—
Johns-Manville, Inc.

Roofing Tin Plates (See Tin Plates—Roofing)—

Rope Socket Metal—
Eagle Picher Lead Co.

Rope—Manila—
Ajax Rope Co., Inc.
Bovaird Supply Co.
Republic Supply Co.
Wall Rope Works Inc.

Rope—Wire—
American Cable Co.
Bovaird Supply Co.
Broderick & Bascom Rope Co.
Bridgeport Machine Co.
International Supply Co.
Jarecki Mfg Co.
Leschen, A., & Sons Wire Rope Co.
Wickwire-Spencer Steel Corp.

Rotary Bit Steel—
Heppenstall Forge & Knife Co.

Rotary Disc Bits (See Bits)—

Rotary Drilling Equipment—
Climax Engineering Co.
Continental Supply Co.
Frick-Reid Supply Co.
International Derrick & Equipment Co.
Link-Belt Co.
Lucey Mfg. Corp.
Lufkin Foundry & Machine Co.
National Supply Co.
Oil Well Supply Co.
Republic Supply Co.
Titusville Iron Works Co.

Rotary Drive Bushings (See Bushings—Rotary Drive)—

Rotary Lines (See Rope—Wire)—

Rotary Post—
Reed Roller Bit Co.

Rotary Rock Bits (See Bits)—

Rotary Tool Joints—
Bartlesville Supply Co.
Hughes Tool Co.

Rotary Ventilators—
Swartwout Co.

Rubber Belting (See Belting)—

Rubber Hose (See Hose)—

Run Down Tanks (See Tanks)—

Rust Preventatives—
Dearborn Chemical Co.
Eagle Picher Lead Co.

S

Sand Line Caps—
Oil Well Improvements Co.

Sand Lines—Wire—
Broderick & Bascom Rope Co.
Wickwire-Spencer Steel Corp.

Sand Pumps (See Pumps—Sand)

Screens—Oil Well—
Layne & Bowler Co.

Screens—Water Well—
Layne & Bowler Co.

Screws—Temper—
Arbon, Paul & Co.
Burns Tool Co.

Seamless Steel Couplings (See Couplings—Seamless Steel)

Securities—Oil—
Pforsheimer, Carl H., & Co.

Separators—Centrifugal—
Miller, Max B. & Co.

Separators—Gas and Oil
American Tank Co.
Smith Separator Co.

Sheet Lead—Chemical and Antimonial—
Eagle-Picher Lead Co.

Sheets—
American Steel Band Co.

Sheets—Blue Annealed—
Kansas City Bolt & Nut Co.

Sheets — Corrugated, Black and Galvanized—
American Sheet & Tin Plate Co.
American Steel Band Co.

Sheets—Steel—
American Sheet & Tin Plate Co.
Republic Iron & Steel Co.

Sleeves—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Sleeves—Split—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Slush Pumps Pistons (See Pistons)—

Slush Pumps (See Pumps)—

Smoke Stacks—
Donovaan Boiler Works.

Sockets—
Acme Fishing Tool Co.
Bridgeport Machine Co.
Spang & Co.

Solders—Bar and Wire—
Eagle-Picher Lead Co.

Spears—
Acme Fishing Tool Co.

Special Steel (See Steel—Special)

Split Sleeves (See Sleeves)—

Sprockets—Power Transmission—
Ajax Iron Works
Chain Belt Co.

Stationary Pipe Threading Die Heads (See Die Heads)—

Steam Pumps—(See Pumps)—

Steel—All Kinds—
Ryerson, Jos., T., & Sons, Inc.

Steel—Alloy—
Central Steel Co.

Steel—Bit—
Central Steel Co.

Steel—Hot Rolled Strip—
Central Steel Co.

Steel—Special—
Central Steel Co.

Steel Band Wheels (See Band Wheels—Steel)—

Steel Bridges (See Bridges)—

Steel Bull Wheels (See Bull Wheels—Steel)—

Steel Castings (See Castings)—

Steel Couplings for Casing, Line Pipe, Drill Pipe and Tubing (See Couplings)—

Steel Crown Blocks (See Crown Blocks)—

Steel Derricks (See Derricks)—

Steel Fabricators—Structural—
Austin Co.
Braden Co.
Graver Corp.
International Derrick & Equipment Co.

Steel Fittings (See Fittings)—

Steel Pitmans—
International Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.
Slater Brothers Turnbuckle Derrick Co.

Steel Plate Construction—
Chicago Bridge & Iron Works
Graver Corp.
Tulsa Boiler & Machinery Co.
Vogt, Henry, Machine Co.

Steel Sheets—(See Sheets, Steel)—

Steel Valves (See Valves—Steel)—

Steel Walking Beams (See Walking Beams—Steel)—

Steel Wheels and Tug Rims—
Carnegie Steel Co.
International Derrick & Equipment Co.

Stills—
Blaw-Knox Co.
Chicago Bridge & Iron Works
Graver Corp.
Kellogg, M. W. Co.
Newton Process Mfg. Co.
Petroleum Iron Works Co.
United Iron Works., Inc.
Vogt, Henry, Machine Co.

Stocks and Dies—
Toledo Pipe Threading Machine Co.

Structural Steel Fabricators (See Steel Fabricators)—

Stuffing Boxes—
Axelson Machine Co.
Kansas City Hay Press Co.

Sucker Rods (See Rods—Sucker)—

Suction Pumps—(See Pumps)—

Sulphuric Acid—
Eagle Picher Lead Co.

Swabs—
Arbon, Paul, & Co.
Guiberson Corp.
Hoffman Mfg. Co.

Swedge Nipples—
Dresser, S. R. Mfg. Co.
Harrisburg Pipe & Pipe Bending Co.

Swing Joints—
Oil Conservation Engineering Co.

Swivels—
Layne & Bowler Co.
Lucey Mfg. Corp.
Titusville Iron Works Co.

T

Tank Cars (See Cars—Tanks)—

Tank Cars Leased (See Cars)—

Tank Equipment—
Oil Conservation Engineering Co.
Westcott & Greis

Tanks—Bolted—
American Tank Co.
Black, Sivalls & Bryson, Inc.
Butler Mfg. Co.
Gantz Tank Mfg. Co.
Maloney Tank Mfg. Co.
Parkersburg Rig & Reel Co.

Tanks—Bulk Station—
Columbian Steel Tank Co.
Graver Corp.

Tanks—Elevated Steel—
Chicago Bridge & Iron Works

Tanks—Field Storage—
American Car & Foundry Co.
American Tank Co.
Black, Sivalls & Bryson, Inc.
Donovan Boiler Works
Graver Corp.
Kaw Boiler Works
Kewanee Boiler Co.
Maloney Tank Mfg. Co.
Pittsburgh-Des Moines Steel Co.
Riter-Conley Co.
Tulsa Boiler & Machinery Co.
United Iron Works. Inc.

Tanks—Horizontal Storage—
Black, Sivalls & Bryson, Inc.
Columbian Steel Tank Co.
Graver Corp.
Maloney Tank Mfg. Co.
Petroleum Iron Works Co.

Tanks—Run Down—
Black, Sivalls & Bryson, Inc.
Donovan Boiler Works
Graver Corp.
Newton Process Mfg. Co.
Pioneer Tank & Boiler Co.

Tanks—Truck—
American Tank Co.
Butler Mfg. Co.
Columbian Steel Tank Co.
White Co.

Tanks—Underground—
Black, Sivalls & Bryson, Inc.
Butler Mfg. Co.
Columbian Steel Tank Co.
Graver Corp.
Kewanee Boiler Co.
Petrolem Iron Works Co.
Pittsburgh-Des Moines Steel Co.
Tulsa Boiler & Machinery Co.

Tanks—Welded—
American Tank Co.
Chicago Bridge & Iron Works
Gantz Tank Co.

Tanks—Wooden—
Black, Sivalls & Bryson, Inc.

Taper Taps—
Hughes Tool Co.

Taps—Measuring for Oil Gauging—
Lufkin Rule Co.

Tee Casing Heads (See Casing Heads)—

Temperature Controllers (See Controllers—Temperature)—

Temper Screws (See Screws)

Thermometers, Indicating and Recording—
American Schaeffer & Budenberg Co.
Brirtol Co.
Foxboro Co., Inc.
Tagliabue, C. J., Mfg. Co.
Taylor Instrument Co.

Threading Machines—
Bignall & Keeler Machine Wks.
Landis Machine Co.

Thread Protectors—
Spang & Co.

Tin Plates—Bright—
American Sheet & Tin Plate Co.

Tin Plates—Roofing—
American Sheet & Tin Plate Co.

Tires—Automobile—
Continental Supply Co.

Tires—Pneumatic & Solid—
Kelly Springfield Tire Co.

Tires—Truck—
Kelly-Springfield Tire Co.

Tongs—
Bridgeport Machine Co.
Dunn Mfg. Co.
Wilson Oil Tools Corp.

Tongs—Back Up—
Williams, J. H., & Co.

Tongs—Break Out—
Reed Roller Bit Co.
Williams, J. H., & Co.

Tongs—Casing—
Guiberson Corp.

Tongs—Chain Pipe—
Williams, J. H., & Co.

Tongs—Pipe—
National Transit Pump & Machine Co.

Tongs—Tool Joint—
Guiberson Corp.
Hughes Tool Co.
Reed Roller Bit Co.

Tool Joints—
Bridgeport Machine Co.
Hughes Tool Co.
Lucey Mfg. Corp.
Regan Forge & Engineering Co.

Tool Joint Tongs (See Tongs)—

Tools—Fishing and Drilling (See Drilling and Fishing Tools)—

Tools — Oil Well Drilling (See Drilling and Fishing Tools)—

Torches—
Oxweld Acetylene Co.

Tractor Oil (See Oil—Tractor)—

Tractors—
International Harvester Co. of America.

Transmission Belt—Rubber—
Goodrich, B. F., Rubber Co.

Transmission Lining—
Stanley Belting Corp.

Traveling Block—
Lucey Mfg. Corp.
Regan Forge & Engineering Co.
Wright Manufacturing Co.

Trenchers—Vertical Boom—
Barber-Greene Co.

Trucks—Motor—
General Motors Truck Co.
International Harvester Co. of America
White Co.

Truck Tanks (See Tanks)—

Truck Tires (See Tires—Truck)—

Tubes—Boiler, Charcoal Iron—
Reading Iron Co.

Tubes—Boiler Steel—
National Tube Co.

Tubing—
National Tube Co.
Reading Iron Co.
Spang, Chalfant & Co., Inc.
Superior Tube Co.

Tubing Catchers—
Dunn Mfg. Co.
Guiberson Corp.

Tubing Elevators (See Elevators, Casing and Tubing)—

Tubing Rings—
Oil Well Improvements Co.

Tubular Goods—
Oil Well Supply Co.
Republic Iron & Steel Co.
South Chester Tube Co.
Spang, Chalfant & Co., Inc.

Tubular Goods—Wrought Iron—
Reading Iron Co.
South Chester Tube Co.

Turbines for Lighting Equipment—
Lucey Mfg. Corp.
Pyle National Co.
Westinghouse Electric & Mfg. Co.

Turbine Generators (See Generators—Turbine)—

Turnbuckle Derricks (See Derricks)—

U

Underground Tanks (See Tanks)

Underreamer Bit Steel—
Heppenstall Forge & Knife Co

Underreamer Cutter Steel—
Heppenstall Forge & Knife Co

Underreamers—
Bridgeport Machine Co.
Guiberson Corp.
Wilson Oil Tools Corp.

Unions—
Continental Supply Co.
Kelly & Jones Co.

V

Vacuum Pumps (See Pumps)—

Valuations—
American Appraisal Co.

Valves—Blow-off—
Homestead Valve Co.

Valves—Brass and Bronze—
Chapman Valve Mfg. Co.
Kelly & Jones Co.
Lunkenheimer Co.
Reading Steel Casting Co.
Walworth Mfg. Co.

Valves—Check—
Gaso Pump & Burner Mfg. Co.

Valves—Drop Forged Steel—
Edward Valve & Mfg. Co.
Vogt, Henry, Machine Co.

Valves—Gate—High and Low Pressure—
Chapman Valve Mfg. Co.
Continental Supply Co.
Crane Co.
Darling Valve & Mfg. Co.
Homestead Valve Co.
Kennedy Valve Mfg. Co.
Kelly & Jones Co.
Ludlow Valve Mfg. Co.
Lunkenheimer Co.
Pittsburgh Reinforced Brazing & Machine Co.
Powell, Wm., Co.

Valves—Iron—
Reading Steel Casting Co.

Valves—Relief—Supersensitive—
Davis Regulator Co.

Valves—Steel—
Edward Valve & Mfg. Co.
Kelly & Jones Co.
Lunkenheimer Co.
Metric Metal Works.
Pittsburgh Reinforced Brazing & Machine Co.
Powell, Wm., Co.
Reading Steel Casting Co.

Valves—Tank Vent—
Black, Sivalls & Bryson, Inc.
Oil Conservation Engineering Co.

Valves—Working Barrel—
Axelson Machine Co.
Hough, Charles N. Mfg. Co.
Northrup Equipment Co.

Varnishes—
Sherwin-Williams Co.

W

Wagons—Truss Wheel—
Athey Truss Wheel Co.

Walking Beams—Steel—
Moore, Lee C., & Co., Inc.

Water Gauge Cocks (See Cocks)—

Water Pumps (See Pumps)—

Water Softeners and Filters—
Graver Corp.

Water Well Screens (See Screens)

Wax—
Barnsdall Refining Co.
Gulf Refining Co.
Pure Oil Co.

Weight Indicators—
Hughes Tool Co.

Welded Tanks—(See Tanks)—

Welding Accessories—Electric—
Wilson Welder & Metals Co.

Welding and Cutting Apparatus, Etc.—
Oxweld Acetylene Co.

Welding Machines—Electric—
Wilson Welder & Metals Co.

Welding Supplies—
Oxweld Acetylene Co.

Welding Wire—
Frick-Reid Supply Co.
Oxweld Acetylene Co.
Page Fence & Wire Products Ass'n.
Wilson Welder & Metals Co.

Well Drilling and Fishing Tools (See Drilling and Fishing Tools)—

Well Drilling Equipment (See Drilling Equipment)—

Well Shooting—
Eastern Torpedo Co.
Zero Hour Torpedo Co.

Winches—
Braden Co.
Oil Conservation Engineering Co.

Wire Lines (See Cables—Steel)—

Wire Ropes (See Rope—Wire)—

Wood Patterns and Models—
Gaso Pump & Burner Mfg Co.

Working Barrels—
Axelson Machine Co.
Bradford Motor Works
Franklin Valveless Engine Co.
Frick-Reid Supply Co.
Hough, Charles N., Mfg. Co.
McGregor Working Barrel Co.
Northrup Equipment Co.

Working Barrel Valves (See Valves—Working Barrel)—

Wrenches—Drop Forged—
Williams, J. H., Co.

Wrenches—Pipe—
Trimont Mfg. Co.
Walworth Mfg. Co.

Wrenches—Ratchet—
Dresser, S. R., Mfg. Co.

Z

Zinc Oxide—
Eagle Picker Lead Co.

Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS

Pipe Line Statement for July, 1925

Runs

	Month	Da. Av.
*Prairie P. L. Co.	4.470.200	144.200
Gulf P. L. Co.	1.283.994	41.419
Texas P. L. Co.	578.082	18,648
Magnolia Pet. Co.	1,031.333	33.269
Empire P. L. Co.	899.692	29.020
Cosden P. L. Co.	785.229	25,330
Sinclair P. L. Co.	1.398 100	45,100
*Other lines	7.719.000	249,000
Total July	18,165.630	585.986
Total June	17,214,563	573,819
Difference	951,067	12,167

Shipments

†Prairie Pipe Line Co.	4.716.116	157,204
*Prairie P. L. Co.	4,822.608	156,568
Gulf P. L. Co.	1,279.186	41.263
Texas P. L. Co.	410,509	13,242
Magnolia Pet. Co.	1,252.985	40.419
Empire P. L. Co.	992,422	32,014
Cosden P. L. Co.	663.736	21.411
†Sinclair P. L. Co.	2,268,870	73,189
*Other Lines	8,122,000	262,000
Total July	18,812,316	639,106
Total June	19,910,042	663,668
Difference	97,726	24,562

Stocks

*Prairie O. & G. Co.	24,525,000
*Prairie P. L. Co.	2.000.000
Gulf P. L. Co. & Gypsy Oil Co.	8,102,460
The Texas Co.	4,773,710
Magnolia Pet. Co.	7,154.232
Empire P. L. Co.	3,292,080
Cosden P. L. Co.	2,350.427
Sinclair Crude Oil Pur. Co.	24,500,000
Carter Oil Co.	17,012.142
*Other Lines	10,500,000
Total July	104,210,051
Total June	106,918,582
Difference	2,708,471

NOTE—Stocks do not include approximately 6,600,000 bbls. of crude oil held in storage on private tank farms and leases.

*Estimated. †Prairie shipments include Texas crude oil and Sinclair shipments include Texas and Wyoming crude oil.

EASTERN PIPE LINES

Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for June and July:

	June '25	July '25
Nat. Transit	172,001.20	163,353.62
S. W. Pa. P. L.	86,007.04	86,630.85
Eureka P. L.	363.322.68	367,819.25
Buckeye P L (Macksburg)	298,734.56	299,165.88
Buckeye P. L. Cleveland)	13,266.82	13,373.21
Buckeye P. L. (Lima, etc.)	146,252.83	141,313.96
Indiana P. L.	12,891.08	11,984.81
Cumberland P. L.	290,298.73	313,908.88
New York Transit	19,287.60	19,566.44
Tidewater P. L.	147,209.66	154,800.11
Pure Oil	186,067.49	183,237.30
Emery P. L.	49,218.50	50,999.53
Indian Ref.	90,018.19	93,779.94
Paragon Dev.	24,742.14	33 666.10
Pittsburgh P. L.		7,976.02
Total	1,899,377.63	1,941,804.63
Daily average	61,270.24	62,638.86

Note—Indian Refining Co. also reported other receipts of 353,992.01 bbls. Paragon Refining Co. had other receipts of 177,-993.55 bbls. Paragon Development Co. had other receipts of 3,257.81 bbls. Pure Oil had other receipts of 32,591.83 bbls. Pittsburgh Pipe Line and other receipts of 2,007.03 bbls.

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for June and July:

	June '25	July '25
Nat. Transit	320,520.47	278,171.30
S. W. Pa. P. L.	336,545.00	351,860.31
Eureka P. L.	187,674.83	165,860.18
Buckeye P. L. (Macksburg)	131,155.43	103,248.69
Buckeye P. L. (Cleveland)	1,214.54	729.09
Buckeye P. L. (Lima, etc.)	962,881.53	1,019,235.51
Indiana P. L.	979,887.76	1,016,237.87
Cumberland P. L.	149,871.72	147,655.16
Crescent P. L.	46,146.60	22,498.78
New York Transit	533,687.40	522,403.15
Northern P. L.	135,867.26	142,147.95
Tidewater P. L.	150,624.26	168,760.54
Pure Oil	223,505.40	232,769.23
Emery P. L.	46,976.71	51,616.93
Paragon Ref.	206,622.16	194,291.32
Indian Ref.	340,609.05	455,773.33
Paragon Dev.	29,687.53	20,860.66
Pittsburgh P. L.		9,370.15
Total	4,633,487.72	5,001,493.06
Daily average	149,467.34	161,338.49

Paragon Development had other receipts of 14,612.73 bbls.

Gross Stocks

The gross stocks held by various pipe lines in the oil producing section of New York, Pennsylvania, West Virginia, Ohio Indiana and Kentucky at the close of June and July were as follows:

	June '25	July '25
Nat. Transit	953,273.29	1,049,158.62
S. W. Pa. P. L.	727,762.35	679,849.72
Eureka P. L.	1,372,128.59	1,368,320.62
Buckeye P. L. (Macksburg)	256,386.67	259,449.10
Buckeye P. L. (Cleveland)	32,592.90	45,121.11
Buckeye P. L. (Lima, etc.)	3,363,803.39	3,594,400.33
Indiana P. L.	586,016.21	575,519.72
Cumberland P. L.	580,073.99	602,764.14
Southern P. L.	375,084.98	408,032.34
Crescent P. L.	58,190.72	32,557.96
New York Transit	1,041,112.91	917,569.37
North P. L.	1,048,050.32	960,052.72
Pure Oil	409,109 26	390,271 16
Emery P. L.	28,039.76	27,785.01
Paragon Ref.	161,678.55	144,615.58
Indian Ref.	95,550.10	100,650.93
Paragon Dev.	4,940.81	6,642.95
Pittsburgh P. L.		4,380.97
Total	11,093,795.80	11,067,453.41
Decrease	113,766.13	26,342.39

Grades of Oil

The following table shows the amount of the different grades of oil held by the Eastern pipe lines at the close of June and July, showing the gross stocks of the above fields:

	June '25	July '25
Penna	3,639,225.56	3,652,264.08
Lima	1,263,321.15	1,232,851.05
Kentucky	1,212,445.28	1,244,959.93
Mid-Continent	4,944,848.33	4,910,618.25
Illinois	33,855.48	26,760.05
Total	11,093,795.80	11,067,453.41

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1922	1923	1924	1925
January	67.702	75.790	62.638	56.831
February	75.096	71.092	68.023	60.606
March	78.531	76.592	68.721	60.576
April	75.462	75.814	71.058	63.063
May	77.592	77.365	62.942	59.217
June	76.193	77.593	63.230	61.270
July	76.435	71.879	64.208	62.639
August	79.387	76.910	59.942	
September	78.512	72.358	62.930	
October	77.209	76.256	64.976	
November	75.313	70.762	56.282	
December	73.351	69.271	55.814	

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1922	1923	1924	1925
January	119,792	171,067	145,518	157,889
February	111,362	164,219	148,732	160,863
March	127,753	185,487	147,098	154,591
April	127,068	170,751	147,611	151,429
May	127,840	177,102	134,997	146,995
June	137,638	173,598	143,010	149,467
July	137,872	168,330	124,187	161,338
August	153,275	142,766	123,120	
September	158,761	137,266	127,325	
October	165,345	134,597	123,170	
November	165,677	131,426	124,400	
December	172,861	139,909	151,392	

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields, including oil received from other lines, at the close of each month for the past three years:

	1923	1924	1925
January	14,040,567	12,907,202	11,853,271
February	14,028,427	11,844,065	11,192,924
March	13,873,146	10,906,752	11,158,297
April	13,737,575	10,922,742	11,062,083
May	13,815,622	11,335,309	11,207,562
June	14,543,253	11,544,264	11,093,795
July	14,645,554	12,062,361	11,067,453
August	14,770,539	12,221,676	
September	14,803,444	12,206,836	
October	14,504,111	12,664,061	
November	14,157,726	12,268,530	
December	13,444,361	11,583,680	

Franklin Pipe Line Co.

The following table exhibits the condition of the Franklin Pipe Line at the close of business for the months named and not counted in the stocks and averages reported above:

	Receipts	Shiptments	Stocks
1924—			
July	3,067.74	3,334.29	13,214.53
August	2,001.36	6.21	16,109.73
September	2,794.53	5,775.89	13,125.43
October	3,342.40	1,880.58	14,590.23
November	2,700.13	482.89	12,427.84
December	3,120.34	2,659.13	12,888.77
1925—			
January	1,730.86	1,681.15	12,938.41
February	2,702.05	4,564.70	11,075.83
March	3,177.21	2,354 30	11 898 74
April	2,040.41	1,780.11	12,159.04
May	2,814.99	5,719.90	10,254.13
June	3,052.75	1,221.83	12,085.05
July	2,639.34	3,174.10	11,550.29

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks August 1	1,889,674.79
Runs from wells	694,990.13
Other receipts	562,569.82
Regular deliveries	466,976.64
Other deliveries	649,021.15

The amount of Illinois oil run by the Tidewater Pipe Line Co. in July was 39,-491.14 bbls., and deliveries were 97,736.55 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

	Runs	Deliveries
1924—		
July	759,646.84	552,386.50
August	720,457.72	519,335.79
September	714,875.36	535,762.80
October	741,767.42	543,863.77
November	650,147.63	521,459.21
December	640,919.23	595,942.38
1925—		
January	695,513.43	572,804.77
February	636,635.20	514,661.53
March	754,335.68	611,348.49
April	622,865.14	627,242.85
May	692,671.94	568,573.63
June	700,090.46	589,535.34
July	724,481.26	564,713.19

The Tidewater Pipe Co., Ltd., also delivered in July, 239,627.49 bbls. of Oklahoma oil. The total deliveries of all grades by the Tidewater were 806,124.51 bbls.

AVERAGE WEEKLY RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF PORTS

Average bbls. per week	Atlantic Ports: Baltimore	Boston	New York	Philadelphia	Others	Total	Gulf Coast Ports: Galveston	New Orleans Baton Rouge	Port Arthur Sabine Pass	Tampa	Total	Total All Ports
April	22,162	68,600	269,931	119,700	133,000	613,493	.....	17,731	.....	.....	17,731	630,224
May	57,806	85,000	292,873	86,685	92,127	564,491	.....	.....	.....	.....	.....	564,491
June	60,669	17,731	126,031	117,400	44,569	376,600	.....	70,235	.....	2,569	72,807	449,407
July	36,127	79,891	265,321	98,042	89,873	569,254	.....	39,515	.....	.....	39,515	608,769

AVERAGE WEEKLY IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

Average bbls. per week—	Atlantic Ports: Baltimore	Boston	New York	Philadelphia	Others	Total	Gulf Coast Ports: Galveston	New Orleans Baton Rouge	Port Arthur Sabine Pass	Tampa	Total	Total All Ports
April	130,900	60,200	418,369	68,831	144,900	823,200	145,131	321,300	84,931	50,869	602,231	1,425,431
May	195,776	64,873	440.097	112,903	135,261	938,910	220,030	264.030	59,773	41,818	574,651	1,513,561
June	167,962	84,700	497.000	101,738	238,938	1,080,338	225,638	196,938	63,000	24,033	509,609	1,589,947
July	93,709	55,545	364.612	123,515	156,485	733,866	175,873	238,455	35,679	53,291	501,298	1,235,164

GROSS PRODUCTION IN THE UNITED STATES FOR 12 MONTHS

1924		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mountain	Eastern Fields	Total
August:	Month	19,112,998	16,525,356	11,808,876	2,717,398	4,359,341	1,702,525	3,749,375	3,226,000	63,361,769
	Daily average	616,548	533,076	380,931	87,658	140,621	54,920	120,948	106,000	2,040,703
September:	Month	18,308.232	16,299,030	11,089,492	2,638,900	4,029,535	1,795,575	3,339,007	3,150,000	60,640,773
	Daily average	610,274	543,301	369,650	87,963	134,318	59,853	111,000	101,936	2,021,359
October:	Month	18,696,559	16,189,898	10,942,005	2,768,455	3,983,696	1,774,707	3,058,268	3,295,000	60,808,581
	Daily average	603,115	522,255	353,000	89,305	128,506	57,249	98,654	109,516	1,961,567
November:	Month	17,767,034	15,955,620	10,731,264	2,597,460	3,461.050	1,965,921	2,788,119	3,941.000	58,207,469
	Daily average	592,234	531,854	357,709	86,582	115,035	65,531	92,937	98,933	1,940,248
December:	Month	18,795,126	16,031 185	11. 264.915	2,537,443	3,380,511	1,870,876	2,302,338	3,000,850	59,183,794
1925	Daily average	606,294	517,135	363,384	81,853	109,049	60,351	74,287	96,402	1,909,155
January:	Month	18,743,388	15,462,800	13,790,195	2,520,858	3,278,484	1,774,072	2,627,676	3,065,993	61,263,366
	Daily average	604.622	498,800	444,845	81,318	105,758	57,228	84,760	98,903	1,976,238
February:	Month	16,869.833	13,905.780	11,361,896	2,466,660	2,836,296	1,547,461	2,666,335	2,905,000	54,609,214
	Daily average	602,494	496,635	405,782	88,095	103,082	55,265	95,226	103,750	1,950,333
March:	Month	18,626,009	14,403,716	13,047,068	2,824,534	3,564.473	1,807,517	2,734,235	3,282,000	60,289,553
	Daily average	600,839	464,636	420,886	91,114	114,983	58,307	88,201	105,871	1,944,502
April:	Month	17,959.653	14,055.450	12,682,520	2,971,110	7,560,240	1,695,780	2,744,691	3,157,000	62,827,444
	Daily average	598,655	468,515	422,784	99,037	252,008	56,526	91,490	107,150	2,026,692
May:	Month	18,820,328	14,486,579	13,165,005	3,493,266	11,813,996	1,887,729	2,799,542	3,167,300	69,633,745
	Daily average	607,107	467,309	424,678	112,686	381,097	60,572	90,308	102,171	2,246,250
June:	Month	19,388,136	12,832,970	12,583,740	3,175,440	9,200,372	1,900,506	2,754,498	3,389,000	66,124,661
	Daily average	642,938	461,099	419,458	105,848	306,679	63,350	91,816	109,000	2,133,065
July:	Month	20,411,049	14,263,565	12, 390,917	3,686,675	7,835,819	1,898,173	3,129,199	3,348,000	66,963,402
	Daily average	658,021	460,115	396,804	118,925	252,768	61,231	100,942	108,000	2,160,110
	Total 12 months	223,398,245	181,411,949	144,358,893	34,398,199	65,363,713	21,620,802	34,634,324	38,187,143	743,918,768
	Daily average	612,050	497,166	396,874	94,242	180,421	56,495	95,037	104,621	2,038,120

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